THE DELIVERY OF HEALTH CARE TO THE FARM COMMUNITY IN BOTHAVILLE

by

Ega Janse van Rensburg

Dissertation submitted in accordance with the requirements for the degree

MAGISTER SOCIETATIS SCIENTIAE

In the

FACULTY OF THE HUMANITIES
(Department of Sociology)

at the

UNIVERSITY OF THE ORANGE FREE STATE

May 2000
Bloemfontein

Supervisor: Prof HCJ van Rensburg
(Centre for Health Systems Research & Development, UOFS)

Co-supervisor: Prof GW de Klerk
(Department of Sociology, UOFS)

The financial assistance of the Centre for Science Development (HSRC South Africa) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily attributed to the Centre for Science Development.

DECLARATION

I hereby declare that the dissertation submitted for the degree Magister Societatis Scientiae at the University of the Orange Free State is my own, independent work and has not been submitted previously at another university or faculty.

I furthermore cede copyright of the dissertation in favour of the University of the Orange Free State.

Ega Janse van Rensburg

Bloemfontein
May 2000

ACKNOWLEDGEMENTS

I am greatly indebted to the following people, without whom I would not have had the ability, means or courage to undertake this study:

- My supervisors, Prof HCJ van Rensburg & Prof GW de Klerk, for excellent guidance and direction.
- My colleagues, Francois Steyn, Zacheus Matebesi, Michelle Engelbrecht and Christo Heunis, for their selfless and generous assistance in different phases of the study.
- Dr David McCoy and Dr Carmen Baéz of the Initiative for Sub-district Support, who made the study possible.
- The fieldworkers from Bothaville, for their hard work and perseverance during field work.
- The respondents who participated in the study, for their willingness to provide in-depth information during lengthy interviews.
- Farmers in the Bothaville district, for their patience with the field work process on their farms.
- Health care managers and governors, for their support and inputs provided with regard to the data gathering instruments.
- Armand Swanepoel, for finalising the lay-out of the document.
- My parents, who believe in me and have never failed to grant me their full support.
- Nico, for his love.

CONTENTS, LIST OF TABLES, FIGURES AND MAPS

CONTENTS

Chapter 3: Background information to the Bothaville sub-district and the health services rendered there, with special emphasis on the mobile clinic services.

Chapter 5: Results of the interviews conducted among farm school teachers

Chapter 6: Results of the interviews conducted among professional nurses working on the mobile clinics

Chapter 7: Results of the interviews conducted to explore opinions of general public health care personnel in Bothaville and Kgotsong regarding health care delivery in the district

Chapter 8: important recommendations and conclusion

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

PART 1: INTRODUCTION AND METHODOLOGICAL APPROACH

Chapter 1

RATIONALE AND METHODOLOGICAL FOUNDATION

1. Introduction and rationale of the study

With its inception in April 1994, the ANC government inherited a public health sector that was characterised by an array of structural inequities and distortions, based on racist legislation throughout many years. It was faced with the major task of reshaping this health system into one that is based on the principles of democracy, equity, equality and unity. The master plan according to which the government envisages to achieve this transformation, is the implementation of a National Health System (NHS), based on a District Health System (DHS) model, with a primary health care (PHC) policy as its foundation.

This transformation process has come a long way since 1994 and although much has been achieved thus far, drastic change, as is involved in such total transformation, is a slow process that requires tremendous effort and patience from the side of policy makers, health managers, health providers, community participants and clients of the public health system. The Free State alone has ninety nine different local governments, six regional offices, fragmented services, and duplicated administrations, structures and systems, which have to be transformed into district authorities. Each district authority will be responsible for a defined health district from which a single authority and a single district management team have to be formed. Such an authority will be responsible for the planning and management of local health services. With the implementation of the local government model from November 2000, the proportions of this task will escalate even further.

In the process of establishing and implementing the DHS in the Free State, an especially important challenge has emerged, namely, to translate provincial policy and administrative reorganisation into real improvements in health care delivery at local level. In order to address this challenge at grassroots level, the Health Systems Trust (a distinguished health research funder in South Africa), in collaboration with national and provincial health departments, initiated a pilot programme of "bottom-up" support to a selected number of health districts in the country. This programme is known as the Initiative for Sub-district Support (ISDS). One of the pilot sites selected for this support programme, is the Bothaville sub-district in the Free State. This district is the geographical concern of this study.

Soon after commencing with her duties, the ISDS facilitator at this site identified a research priority that would support the implementation of the DHS in the Bothaville sub-district. This research priority stemmed from health care managers and governors who had indicated that they had insufficient information with regard to the general socio-economic conditions, health care needs and disease profile of the rural community, as well as the accessibility and quality of

care provided to them. Information was also needed with regard to the perceptions, attitudes and needs of the health care personnel serving the sub-district.

Apart from the fact that such a study would supply health managers and governors with necessary information for planning, a new mobile clinic system, called the "stopping" or "visiting point system", had been implemented for around five months prior to the commencement of the study. The new system was jointly developed by the ISDS team in the area, the Regional Department of Health (Tshepano), health workers, governance and health management structures, and the agricultural union of the area. The previous system of mobile clinic health care delivery entailed that three mobile clinic teams provided a three monthly service to the farm community by visiting 432 farms and 75 farm schools. This system was found to be inadequate as the mobile clinics only visited every farm and farm school on a three-monthly basis.

The newly developed system was implemented at the end of October 1997. The mobile teams, at the time of the study, visited 35 visiting points situated on farms in the Bothaville district, from which they work to provide health care to the rural community (see Map 1: Geographical distribution of mobile visiting points in Bothaville). An evaluation of the effectiveness, efficiency and user-friendliness of the new versus the old system was deemed necessary.

The intention of the study was not only to supply health managers and governors with information for the sake of being informed, but also for the rural community (beneficiaries of the service) and mobile clinic nurses (suppliers of the service) to benefit from the better informed position of managers and governors. The findings of this study can be applied to optimise the services and service conditions of mobile clinics.

In summary, this study was primarily conducted to provide health care managers and governors with the needed information regarding the delivery of health services to the farm community in the Bothaville district, in order to enable them to optimally plan and facilitate the implementation of the DHS in this sub-district.

In addition to the intended purpose of this study, relevant parties in other sub-districts of the province would also benefit from the endeavour, as they could learn from possible mistakes made and lessons learnt in the Bothaville case, as the duplication of the new model was envisaged for eventual implementation in most of the Free.

2. Statement of the problem and the many facets thereof

As could be derived from the previous discussion, the central research problem of this study is the improvement of the delivery of PHC to the farm community in the Bothaville sub-district. **Factors that could influence**, and in many cases **constrain**, rendering of these services, include:

- **Secondary information for planning:** Apart from the factors that directly influence or constrain rendering of mobile services and the utilisation thereof, as discussed under the factors below, a lack of contextualisation and general information with regard to the South African health care system and the Bothaville sub-district could also indirectly influence or constrain the services. The reason for this is that information is crucial for the planning and implementation of the mobile health services and the DHS in general.

- **Accessibility:** Distance, transport, regularity of stopping point visits, waiting times, queues, permission from farmers, efficiency of services, geographic area, weather conditions, the state of roads, availability of emergency services, whether schools are visited or not, service hours, efficiency of ambulance services, and the user-friendliness of health care services are all factors that might influence the delivery of health services to the rural community.
- **Health seeking behaviour:** An important factor that could influence the delivery of health care services to people in the rural communities, is the availability of health care and emergency services. Rural dwellers might seek help from traditional birth attendants and/or traditional healers due to a lack of conventional health services. The question is who the rural community members visit when they first become ill, who refers them, and who supports them.
- **Dissemination of information:** The main factors regarding the dissemination of information that may influence the delivery of health care, are a possible lack of information on dates and the location where mobile health services are available; uncertainties regarding the procedures at visiting points; time table changes; and farmers' lack of knowledge about the visiting point system.
- **Health care needs (felt needs):** It is possible that the health care needs of the rural communities are not met. These needs have to be identified and urgent matters need to be prioritised.
- **General living conditions:** Various factors relating to the general living conditions of the Bothaville rural community, such as financial ability, sanitation, water and energy supply, need to be assessed in order to investigate their influence on the general health of this rural community.
- **Community involvement:** Important factors that could influence the services rendered, could be a lack of community involvement in decision making about health care services; farmers' attitudes concerning health services for their farm workers; assistance and support provided by farmers during episodes of illness and emergencies; a lack of structures representing the rural communities; and farmers having to transport farm workers to visiting points.
- **Service delivery factors:** Numerous possible service delivery factors might impede the delivery of health care services to rural communities. These include staff motivation; constraints in the current service delivery system; sufficiency of communication between mobiles; availability of medication; as well as availability of comprehensive services (e.g. specialists).
- **Referral factors:** The referral of rural patients to services in the town could be a factor hampering the delivery of health care services to rural communities.

From these factors, the specific research objectives for this study, and consequently, the data gathering instruments, were derived. This will be discussed in more detail in the following pages.

3. Aim and objectives of the study

The general aim of the study is to aid the improvement of health care delivery to the rural community of Bothaville by assisting with the facilitation of DHS implementation. This is done by providing information to relevant health care managers and governors on the development of the South African health care system; the post apartheid health system, general background information on the Bothaville sub-district and a profile of mobile clinic services there, the current

situation with regard to the rural community; and the services that are rendered to them. The **main objectives** of the study are to:

- reconstruct the development of the South African health care system before April 1994;
- reproduce the most important elements of the post apartheid health system and the successes and failures of the transformation;
- present general background information concerning the mobile services in Bothaville sub-district and on the sub-district itself;
- evaluate and reconstruct the current system of health care provision to the rural community in terms of its rural coverage, the disease profile catered for, the quality of care provided, and the referral system and its constraints;
- identify the differences between the previous and the new system of mobile health care;
- collect baseline information with regard to the rural community in the area in terms of the composition of the population, their socio-economic environment, accessibility of health care, and their health and health seeking behaviour;
- assess the attitudes, perceptions and needs concerning health care among the rural population; and
- reflect upon perceptions and attitudes of health care providers, concerning multiple aspects of health care delivery and the implementation of the DHS.

From these main objectives it is clear that the overall design of the study would have to be exploratory and descriptive. It is believed that the information obtained during the study will support governors and health managers in the area, to better plan health services and implement the DHS in an informed manner.

Within this general framework, the following **specific objectives** have guided the research process (as these are linked directly to aspects of the research problem):

(i) **With reference to the reconstruction of the development of the South African health care system up to 1994**, the following objectives apply:

- to deploy the development of the South African health system with reference to overlaps and contradictions with the principles of NHS, DHS and PHC from its birth in 1652 up to 1994, in four parts, i.e.: Dutch and British occupation (1652 - 1909); unification up to the era of Grand Apartheid (1910 - 1947); the era of Grand Apartheid (1948 - 1990); and development after 1994, i.e. the dawn of a new health care system.

(ii) **With reference to the description of important elements of the post apartheid health system and the successes and failures of the transformation**, the following objectives apply:

- to describe the post apartheid health system and its implementation in terms of NHS, DHS and PHC;
- to describe the development of the ISDS; and
- to critically evaluate the transformation process and outcomes.

(iii) **With reference to the general background information of the Bothaville sub-district**, the following objectives apply:

- to provide relevant background information on the Bothaville sub-district in terms of geographical aspects, and demographic and economic indicators; and
- to describe the health services rendered in the Bothaville sub-district with special emphasis on public health care.

(iv) **With reference to the general background information of mobile clinic services**, the following objective applies:

- to describe the mobile clinic services in the Bothaville sub-district in terms of its development, a profile of the old and the new systems, and important equipment, infrastructure, services rendered, and the essential drug supply.

(v) **With reference to the delivery of health care to the rural community of Bothaville**, the following objective applies:

- to compare the strengths and weaknesses of the previous system and those of the new mobile clinic system.

(vi) **With reference to improving the health care delivery to rural communities**, the following objectives apply:

- to examine the physical accessibility (distance, transportation, knowledge of the mobile clinic time table, regularity of mobile visits, waiting times/queues, permission from farmers to attend the mobile, efficiency of services) of health care to rural communities;
- to determine the health seeking behaviour of the rural communities;
- to determine the user-friendliness of health care services for the rural community;
- to investigate the quality of health care services;
- to determine the health care needs of the community;
- to examine the infrastructure of health care services for the rural communities;
- to assess the attitudes and participation of the rural communities in health care matters, and if there is no participation, whether they are prepared to become involved in decision making concerning health services;
- to investigate the motivation of staff (includes staff satisfaction, staff commitment, work overload, staff dedication);
- to examine the assistance and support provided by farmers to ill rural dwellers or rural dwellers experiencing an emergency;
- to determine whether there are any problems with the referral of patients;
- to identify what formal and informal structures are in place for users to receive better health care (e.g. health committees, network for farm areas, church); and
- to identify constraints in the current delivery system.

(vii) **With reference to the general living conditions of the Bothaville farm worker community**, the following objectives apply:

- to describe the socio-economic conditions of the farm worker community;
- to examine matters relating to hygiene and sanitation in rural communities; and
- to investigate water supply to people living in the rural area.

It is mainly the last three sets of specific objectives that guided the construction of the data gathering instruments. The first four sets of objectives steered the contextualisation of this study (as done in the literature review) in the broader milieu of the South African health care system, the sub-district under study and the mobile clinic services in the area.

4. Research strategy and methodology

4.1. The literature study

Apart from the empirical study that was conducted to provide health care managers and governors with needed information concerning the farm community and mobile clinic services in rural Bothaville, a literature study was conducted to contextualise the case of the Bothaville sub-district within the ISDS. This is done by reconstructing the development of the South African health care system on its way to the post apartheid health system, as well as to provide the most important policy guidelines and elements of the health system after 1994, with the focus on the implementation of the DHS, the origin of the ISDS, and this study in the realm of the ISDS. The first chapter of the literature study concludes with an evaluation of the position of health care transformation in South Africa. In the second chapter of the literature study, a background to the Bothaville sub-district is sketched with regard to geographic, demographic and economic indicators and general health services rendered in Bothaville with the emphasis on public health care. Moreover, the mobile clinic services rendered in the sub-district are analysed in terms of the establishment of mobile services; a profile of the old and new system; important equipment, infrastructure, services most often rendered and the essential drug supply on the mobile clinics; the main diseases and ailments treated; referrals; and the main constraining factors in mobile health service delivery.

The literature study was compiled from a variety of sources that have historical or contemporary value in defining and describing the South African health system in its different developmental stages, in the relevant macro and micro capacity aspects, as is found in the second and third chapters of this document.

4.2. The empirical study

4.2.1. Study populations and sampling

For the empirical part of the study, four study populations were involved, namely (1) clients/potential clients of mobile clinics (rural community in Bothaville magisterial district); (2) farm school teachers; (3) personnel serving on the mobile clinics; and (4) general public health care personnel in Bothaville, (i.e. personnel at fixed clinics, the hospital, emergency services, the health inspector and district surgeon services). The following pages present more information in this regard.

Sample 1: Clients/potential clients of mobile clinics (rural community in Bothaville magisterial district)

There are 432 occupied farms and 75 farm schools in the Bothaville magisterial district, of which 35 farms or schools situated on the farms, serve as mobile clinic visiting points. An example of a monthly mobile visiting point cycle is shown in Table 1.

Table 1: Visiting points covered per month by mobile clinic services

February 9	February 10	February 11	February 12
1. Smaldeel	3. Daniëlskuil	5. Altonia	7. Doringhoek
2. Grootpan	4. Humansvlakte	6. Tarentaalbos	8. Vosterkraal
			9. Highlands
February 16	**February 17**	**February 18**	**February 19**
10. Skoonspruit	12. Single Heart	14. Mirage	17. Uitkoms
11. Phillipina	13. Kommandodrif	15. Sonop	18. Rorich
		16. Graslaagte	
February 23	**February 24**	**February 25**	**February 26**
19. Excelsior	21. Lomangundi	23. Tidor	26. Vienna
20. Eensgevonden	22. Palmietfontein	24. Middelburg	27. Pritchard
		25. Morning Star	
March 2	**March 3**	**March 4**	**March 5**
28. Smitsdal	30. Hartebeesbult	32. Unie	34. Hartebeeskuil
29. Von Abosvilla	31. Normandi	33. Krugerskraal	35. Baviaanskrans

To be able to compare differences in health care delivery on farms which are actually visited by mobile clinics and those that are not, it was argued that approximately a quarter (9 farms out of 35 which are visited by mobile clinics) of the selected farms should be sampled, from those that serve as visiting points, and the remainder from farms that are not visited (which amount to 21 farms). To select the farms that are visited by mobile clinics, random sampling was conducted, using a sampling frame including the 35 visiting points.

To select the 21 farms not serving as visiting points, distance from farms serving as visiting points was used to compile three geographical strata, namely farms between one and five kilometres from a farm serving as a visiting point, farms between six and ten kilometres from such points and farms more than ten kilometres away from such points. Available maps did not indicate the location of dwellings on farms. Nevertheless, measuring the distances from central points on farms to the central points of farms serving as visiting points (on the maps), suggested that it was unlikely that any farm worker community would be situated further than 20 kilometres from a farm serving as a visiting point. Therefore, it was decided to select these farms in even proportions according to the three mentioned geographical strata, thus seven farms were selected in each stratum.

The final selection according to the geographical strata was done on Map 2: Geographical distribution of farm sample in Bothaville. An attempt was made to realise an even geographical spread. In short, the sampling of the rural community on farms had thus been done in the following way:

A total of 30 farms were targeted on which interviews were conducted. Five households were randomly selected on each farm and one respondent was interviewed in each household. A

sample of 150 households were selected, which amounts to 150 structured personal interviews conducted with respondents on farms.

Of further importance is that no farms were selected within a radius of five kilometres from the Bothaville and Kgotsong residential areas, for it was argued that it would be easier for people living on such farms, to go to the PHC clinic in Bothaville rather than make use of mobile visiting points. Therefore, selecting farms within a five kilometre radius of the residential areas where the clinics are situated, could have an impact on the data as a confounding variable.

The sample, according to whether a farm serves as a mobile visiting point or not and according to the geographical strata, is depicted below:

- **Farms serving as visiting points:** Smaldeel, Tarentaalbos, Single Heart, Rorich, Middelburg, Hartebeesbult, Doringhoek, Kommandodrif and Excelsior.
- **Farms not serving as visiting points less than 5 km from the nearest visiting point:** Uitkyk, Eensaamheid, Eensaamheid , Nooitverwacht, Taljaardtsdam, Mon Repos and Gelykvlakte.
- **Farms not serving as visiting points 6-10 km from the nearest visiting point:** Vlaklaagte, Klipfontein, Rooidag, Jessie Dale, Jonkerskraal, Alabama and Robertson.
- **Farms not serving as visiting points more than 10 km from the nearest visiting point:** Addo, Modderfontein, Morning Star, Carlsbad, Uitkyk, Ruspan and Katbos.

The gender strata were proportionately compiled according to the population figures for the Bothaville rural area as projected for the year 2000 (Demographic Information Bureau, 1998). According to these figures, the proportions of female and male respondents were 49% female and 51% male. Due to the almost 50/50 gender division, equal numbers of males (n=75) and females (n=75) were interviewed.

The age strata were also proportionately compiled according to the Bothaville rural area population figures as projected for the year 2000 (Demographic Information Bureau, 1998). No respondents under the age of 20 years were interviewed, since it was assumed that respondents who are too young might jeopardise the validity of the data. Five age categories were used to stratify respondents according to age. This is depicted in Table 2.

Table 2: Gender and age strata for Bothaville rural population and actual number of respondents interviewed

FEMALE RESPONDENTS				
Age category	**Number out of ' total female population**	**Percentage of total female population**	**Proportionate number out of 74 respondents**	**Actual number of respondents interviewed**
20-29	2452	34.2	26	25
30-39	1834	25.6	19	20
40-49	1290	18.0	13	14
50-59	917	12.8	9	8
60+	669	9.4	7	8
Total	**7162**	**100.0**	**74**	**75**

MALE RESPONDENTS				
Age category	**Number out of total male population**	**Percentage of total male population**	**Proportionate number out of 76 respondents**	**Actual number of respondents interviewed**
20-29	2432	32.3	24	21
30-39	1947	25.9	20	19
40-49	1468	19.5	15	16
50-59	1067	14.1	11	9
60+	615	8.2	6	10
Total	**7529**	**100.0**	**76**	**75**

* Source: Demographic information Bureau, 1998

Sample 2: Farm school teachers

A sample of eight farm schools (out of a total of 75 farm schools in the sub-district, 10.6%) were selected. Four of the selected schools serve as mobile visiting points or are situated on a farm which serves as a mobile visiting point, while the other four schools had no mobile visiting point on the farm where they are situated.

Convenience sampling was done to select the eight farm schools. Seven were primary schools and one was a secondary school. The secondary school is the only one in the rural area of the Bothaville sub-district, all the other schools in the rural area are primary schools. Structured group interviews were conducted with a convenience sample of personnel employed at the schools. Personnel present at the schools at the time of the research team's visit, were all interviewed. A total of 30 teachers were included in the interviews (see Map3: Geographical distribution of farm school sample in Bothaville).

Sample 3: Professional nurses working on mobile clinics

All the professional nurses working on the mobile clinics (three at the time of the study) were included in this study population. Structured personal interviews were conducted with these respondents.

Sample 4: General public health care personnel

Structured personal interviews were conducted with professional nurses at the three fixed clinics (n=3), professional nurses and management personnel at the hospital (n=4), a professional nurse at district medical officer surgery (n=1), district medical officers (n=3), emergency service personnel (n=3) and the health inspector (n=1), in Bothaville and Kgotsong. A total number of 15 general public health care personnel were interviewed.

4.2.2. Research instruments, data collection and data analysis

As should be expected, the ISDS as well as relevant health managers in the Bothaville sub-district provided necessary **input** with regard to the content of the **data collecting instruments**

that were utilised for the purposes of this study, as the endeavour was supposed to provide them with information that they needed. Methodologists from the Centre for Health Systems Research & Development and the Department of Sociology (both at the UOFS) further contributed to optimising the methodology and the data collecting instruments that were used.

A combination of **quantitative and qualitative techniques** were used. The data collection instruments consisted of four structured interview schedules, one for each study population. Although the four interview schedules were structured, a significant number of the questions (approximately half) were of an open-ended nature and therefore allowed for the inclusion of more qualitative and in-depth answers (see Annexure B). Personal interviews were conducted with the clients/potential clients of the mobile service living on farms, the mobile clinic personnel and the general health personnel in the area (samples 1, 3 and 4), while structured group interviews were conducted with farm school teachers (sample 2).

The 150 interviews conducted with clients or potential clients (sample 1) of the mobile services were **quantitatively analysed**. Both closed and open-ended questions were coded on the interview schedules, for which provision was made in the right margin. All coding and analysis of open-ended questions was done by the principal researcher (myself) and the data was captured and computer analysed by the Computer Centre at the University of the Orange Free State. The Statistical Package for Social Sciences (SPSS) was utilised for this purpose.

The **data** gathered from the remaining three study population samples, was **analysed qualitatively**. The main reasons for this was that the samples were small and therefore more manageable, and also because this data was of an in-depth nature and valuable insights might have been lost if a statistical programme was used to analyse it.

The **interview schedule** that was used for the sample of clients or potential clients (sample 1) was cross-culturally translated into Sesotho. A language assessment done as part of planning for the study revealed that the vast majority of rural dwellers in the area spoke Sesotho (this interview schedule was therefore available in Sesotho and English). This interview schedule was pre-tested in Kgotsong (township adjacent to Bothaville). Interview schedules for the other three study populations were available in English and Afrikaans as respondents in these groups underwent the instruction for their degrees and/or diplomas in either of the two languages and would therefore be proficient in at least one of them.

The **research team** consisted of a principal researcher also serving as fieldwork manager (myself), two fieldwork coordinators, and seven field workers (community members from the Bothaville sub-district who interviewed respondents in sample 1).

The **recruitment of fieldworkers** from Bothaville/Kgotsong contributed to community involvement in the study. Furthermore, apart from the fact that these field workers were temporarily economically empowered by the task at hand, they also gained useful skills and a reference that they could use in future. The requirements for their selection included that they should be: able to speak and write in English and Sesotho; members of the Bothaville/Kgotsong and surrounding communities; and unemployed at the time of the study. The selected **field workers** were **trained** in interviewing techniques, as well as acquainted with the project and the research instruments in a four day training workshop that was facilitated by the principal researcher and assisted by the two field work coordinators.

The principal researcher accompanied the research team to the farms for the first few days of the study to ensure that the **field work** was done according to plan, after which she commenced with the interviews of the health care personnel and the farm school teachers. In the absence of the principal researcher, the two coordinators were present with the interviewers during the entire field work period to assist and support them. Completed questionnaires were edited as soon as possible after an interview was completed to ensure that it was done correctly and thoroughly. This also meant that any mistakes could be corrected while the interviewers were still on or near the farm where the mistake occurred.

Group interviews with farm school teachers were conducted by the principal researcher, as well as one of the field work coordinators. The **personal in-depth interviews** conducted among health personnel in the sub-district, were done by the principal researcher. These interviews were conducted in either English or Afrikaans, depending on the respondent's preference.

As far as possible, farmers were contacted in order to obtain permission to visit their farms and interview workers and teachers. A hampering factor was that a large part of the district's telephone lines were out of order (stolen) at the time of the study. In these cases, the research team first went to the farmer's house and asked permission before interviewing people residing on the farm. Appointments were also made per telephone with health care personnel. No selected respondents refused to participate, nor did any of the farmers refuse to allow the research team to interview people residing on their farms.

No serious problems were experienced during the course of the field work. Some minor **hampering factors** were a communication problem due to stolen telephone lines; exceptionally rainy and wet weather at the time of the study, which made the roads between the farms very difficult to negotiate with a minibus; and a farmer in the district was regrettably murdered a week or two prior to the commencement of the field work. This rendered the "farm watch" alert and the research team was stopped and questioned on a few occasions by some of its members. The incident also led to some of the farmers and their families being very cautious and careful and explaining and identification had to be done on some farms. Apart from this, the field work went according to plan.

4.2.3. Conceptualisation

The clarification of most of the important concepts will be incorporated in the two literature study chapters that contextualise the study within the South African health system (Chapter 2 and 3). In these chapters there are extensive descriptions and discussions of concepts such as primary health care (PHC), District Health System (DHS), National Health System (NHS), and the Initiative for Sub-disrict Support (ISDS). A few additional health-related concepts that are used in this document, without an accompanying definition or description, need to be clarified here. The most important concepts that need clarification, include the following:

- **Fixed clinic:** A PHC clinic in a fixed building, staffed by professional, assistant and/or staff nurses, stocked by essential drug list (EDL) drugs for clinics, and rendering a full range of PHC services.
- **Mobile clinic:** A vehicle (e.g. minibus) stocked with PHC clinic level drugs and equipment, manned by professional nurses and assisted by other nursing personnel, which travels to rural areas from Monday to Friday taking PHC to rural dwellers.

- **Essential drug list (EDL):** A standard list of drugs that are used by the public health sector with specifications of which drugs could be used for which ailments. There is an EDL for public health sector clinics, doctors and hospitals respectfully.
- **Minor ailments:** Ailments that could be treated by a clinic nurse and do not need the supervision or authorisation of a doctor, including ailments such as headaches; minor eye, ear and nasal infections; flu; cuts; bruises; and scrapes.
- **Normal delivery:** A vaginal delivery without complications.
- **Caesarean section:** Delivery assisted by an operation involving the removal of the baby from the uterus of the mother, thus not a vaginal delivery. The reason for performing this procedure usually involves birth complications.
- **Teenage birth:** A woman aged 19 or younger giving birth to a baby.
- **Sexually transmitted disease (STD):** Diseases that are sexually transmittable, e.g. HIV/AIDS, Syphilis, Herpes, Gonorrhoea, etc.

5. Layout of the material

This dissertation consists of **three parts** that are divided into **eight chapters**. The **first part** consists of **one chapter** which provides an introduction and rationale to the study**, the aims and objectives,** as well as a description of the **methodological approach** (this chapter). The **second part** of the study comprises the **literature study**, and is divided into **two chapters**. The **first chapter** examines the **development of the South African health care system** up to 1994, with the focus on overlaps and contradictions between earlier development trends and principles, as well as the post apartheid health system's principles of NHS, DHS and PHC. The post apartheid health system is further described in terms of its policy framework and principles. The chapter concludes with a critical evaluation of the transformation that is taking place in the health system, in terms of successes and failures.

The **second chapter** of part two provides general **background information on the Bothaville sub-district** in terms of geographical aspects, and demographic and economic indicators; health services rendered in the Bothaville sub-district, with special emphasis on public health care and a description of mobile clinic services in the district in terms of its development; a profile of the old and new systems; important equipment; infrastructure and services rendered; and the essential drug supply.

Part three of this study is divided into **four chapters** (chapters four to seven), each describing the **empirical findings** of one of the four study populations. **Chapter four** presents the **results of the survey conducted among users or potential users of the mobile clinic services in the Bothaville district**, the most important topics of which included: biographic, demographic and socio-economic related information; mortality and morbidity profiles; trends, perceptions and opinions of respondents regarding their health seeking behaviour, the new mobile system and the health care clients receive, as well as the health care that they do not receive at mobile clinics.

Chapter five provides **the results of the interviews conducted with farm school teachers in the district**. The most important topics discussed in this chapter include: the health facilities available to learners attending farm schools; the mobile clinic services in terms of the previous and new systems; the availability and accessibility thereof; services rendered by these clinics;

shortcomings and constraints; and the nature and status of cooperation between schools and mobile clinics.

Chapter six presents the **results of the interviews conducted among the professional nurses working on the mobile clinics**. The most important topics in this regard include: work problems that are experienced; an evaluation of the previous mobile and the new mobile clinic system; the effects and influences of the implementation of the new mobile clinic system; planning and implementing of the new system; and the possibility of service integration in the sub-district.

Chapter seven presents the **results of the interviews conducted among general public health care personnel in Bothaville and Kgotsong** to explore their opinions regarding health delivery in the district. The main interview topics were: problems experienced in the provision of health services in the sub-district; an evaluation of the previous and the new mobile clinic system; the effects of the change in the mobile clinic system on the services that are rendered by fixed clinics; the planning and implementation of the new mobile clinic system; general communication and community involvement in health care; and the integration of public health services in the sub-district.

The last chapter **(chapter eight)** is devoted to the **main recommendations** that were derived from the study; as well as a description of the dissemination of the results to the relevant health managers, governors, and the ISDS. This information will guide them with the provision of mobile clinic services and assist them with the implementation of the DHS in the Bothaville sub-district.

PART 2: LITERATURE STUDY

Chapter 2

DEVELOPMENT OF THE SOUTH AFRICAN HEALTH CARE SYSTEM

1. Introduction

In order to contextualise the study conducted in the Bothaville sub-district within the South African health system, it is deemed necessary to provide background information concerning the development of the South African allopathic or Western health care system in the light of most important trends and characteristics thereof. This will unfold in two parts: (i) Developments before 1994: Colonial and Apartheid health care; and (ii) Development after 1994: the dawn of a new health care system.

The principles of a single NHS, based on the implementation of a DHS, with PHC as its policy foundation, will form the directive according to which the development of the health system before 1994 will be measured. These principles include, in short, that there should be a single comprehensive, equitable and integrated health system, that delivers high quality accessible, effective, efficient, equitable and comprehensive health services which are sustainable in the South African context. There should be no room for racial, ethnic and gender discrimination in this system (ANC 1994a: 45; ANC 1994b: 7,19; Department of Health, 1997a: 28; Free State Department of Health, 1998: 8; Van Rensburg *et al.*, 1998a: 2; 1998b: 1-2).

The policy principles mentioned above represent the point, in the development of the South African health system, where we have found ourselves at the time of this study, the "ideal" towards which progress in the development of the health system was on its way throughout its developmental history. Therefore, cross references will be made to focus the attention of the reader on overlaps between the principles of a NHS, DHS and PHC and the earlier development of policies, trends and characteristics, as well as to reveal areas where the development evolved in the opposite direction of the principles of this "ideal" policy. It can clearly be derived in the first part of the chapter to follow, that especially fragmentation and racial discrimination were deeply imbedded in the development of the South African health system up to the 1990s. A detailed discussion on what the post apartheid health system and policy entail, how it functions and how it was and still is implemented, can be found in the second part of Chapter 2. The chapter is ended off with a discussion of how the transformation is progressing and problems experienced therewith.

2. Before 1994 - Colonial and Apartheid health care

2.1. Dutch and British occupation (1652 - 1909)

The early history of health care in South Africa is broadly reconstructed by several authors (Van Rensburg 1991; Van Rensburg *et al*, 1992; Beselaar, 1989; Burrows, 1958; Gluckman-

commission, 1994; Laidler & Gelfand, 1971; Loots & Vermaak, 1975; Mellish, 1985; Searle, 1965). The first Western medical services came to South Africa with Jan van Riebeeck and the Dutch East India Company (1652), who established a permanent refreshment station at the Cape of Good Hope. The ship surgeons served the Lords XVII providing health care, and the first hospital in South Africa was established in May 1652 (in tents), while a permanent structure was built at the station not long thereafter (1656). In 1657 the first free burgers, (employees of the Dutch East India Company who were released from service to become independent farmers), settled in the Cape and around that time, the first private practitioner also settled there. Other doctors followed as the need for practitioners grew. Servants were mostly trained and appointed as doctors' assistants. The first professional birth attendant arrived in the country in 1675. At that stage there was no formal structure according to which the health care system developed, neither was there any formal organisation and coordination of medical services.

The smallpox epidemic of 1755 took the lives of more than 2 000 people in less than five months. This made the authorities realise that some measure of organisation was needed, and led to various precautionary measures being implemented in the two years that followed. This included vaccinations against smallpox; the declaration of smallpox as a notifiable disease; the implementation of quarantine measures for ships and ill persons; medical assessment of ships; and the immediate burial of corpses. This can be seen as the first significant attempt at organising public PHC in the country. At more or less the same time, two emergency hospitals were built, one for Europeans and one for Africans. Note that racial divides were already laid down in the eighteenth century, nearly two centuries before the notorious implementation of "apartheid" in the country. At this early stage of the development of the health system, separate facilities already became a reality (Van Rensburg, 1991: 1-2, 53, 59; Van Rensburg *et al.*, 1992: 36-40).

Then, in 1795, the British occupied the Cape. Their influence on health care manifested particularly in the construction of numerous military and civilian hospitals, and in a series of health-related legislative acts and ordinances, especially aimed at regulating the practice of health care and containing the spread of epidemics. Attempts were made to gain control of health care rendered in the colony and to formalise the structure of health care provision by introducing legislation and the professionalisation of health care. This included the first Health Act of 1807, wherein it was proclaimed that all medical practitioners had to be licensed in order to lawfully practise in the colony. A further development which is important for this study, was the Public Health Amendment Act (no 23 of 1897), which promoted better coordination of the health system, by creating a Colonial Public Health Department and appointing a Medical Official for Health for the colony, and implementing primary care measures to curb disease (Van Rensburg *et al.*, 1992: 40-42). This was an important attempt at better organising health care, as well as an attempt to implement some elements of PHC.

Despite the above mentioned and other attempts at implementing meaningful control measures, the health system still developed in a relatively uncoordinated manner. No central body executed control over it to really govern the health system and to take responsibility for health care in the British colonies and the Boer republics. This fact was again highlighted by several epidemics that devastated the country during this period, as happened with the smallpox devastation during Dutch reign. Of further importance is the fact that, by this time, separate health facilities were being built for African people in the country as a rule, and racial segregation

was therefore firmly and progressively laid down during the time that the British occupied the country.

These developments in health care, as well as numerous others in the two and a half centuries of European occupation, laid down the first structural features of the South African health care system. Van Rensburg and others (Van Rensburg, 1991: 1-3; 1998: 172; 1999: 3; Van Rensburg *et al.*, 1992: 53-54; Van Rensburg & Harrison, 1995: 53) have identified five distinct features or trends, which could be traced throughout the history of its structural development and which were clearly distinguishable by the time of the Unification of South Africa in 1910. They include: Firstly the parallel existence of two contrasting medical cultures, that of Western medicine and traditional African medicine, of which the Western culture gained official status, although the African model continued to exist in an unofficial form throughout the centuries. Secondly, increasing emphasis on the central role of the doctor, the hospital and curative care in the South African health care system. All other health professions, institutions and primary, preventive and community-based health care had to stand back in a neglected position. Thirdly, because of the fact that the Europeans who occupied South Africa in this period were predominantly Western and white, and the native population indigenous Africans and black, conflict (as there was much conflict and confrontation between the two groups) was not only between Westerner and African, but also between white and black. This marked the foundation of the "colour issue" in South Africa and should also be seen as the onset of racial segregation in health care, since the providers of Western health care have, mostly without exception, always been white. Fourthly, the pluralistic nature of the health care structure in South Africa, with on the one hand a private sector of health care provision and financing, representing high quality care driven by the principles of the a free-market, and on the other hand a public health sector, financed by the state and mostly of inferior quality in comparison with the private sector. Lastly, the unplanned, uncoordinated, fragmented, policy coincidental, almost random way of development of the South African health system took root, and resulted in health services being established in isolated, and predominantly white areas and later becoming part of the various British colonies and Boer republics. This pattern was carried over to the dispensation of the Union of South Africa (Van Rensburg, 1991: 1-3; 1998: 172; 1999: 3; Van Rensburg *et al.*, 1992: 53-54; Van Rensburg & Harrison, 1995: 53).

It is particularly the second, third and fifth characteristics that this study will focus on further. The manner in which these trends further developed and escalated after the Unification of South Africa and in the era of Grand Apartheid, will now be discussed shortly. Especially important in this regard were the attempts, as will be illustrated, to unify and coordinate health care delivery in the form of a NHS, to shift the emphasis from curative health care to PHC, and to provide better quality health services to the African and other non-white peoples in the country.

2.2. From unification up to before the era of Grand Apartheid (1910 - 1947)

2.2.1. Mainstream development

South Africa became a Union in 1910. This made the unifying of health services under one authority possible. However, the Union government chose to assign responsibility for health care to four provincial administrations, while independent local authorities still continued to provide health services as they did in the previous division. This was an easy way out, because in this way, it was not necessary to establish new health governing structures. The model used by the

four colonial authorities of the previous division was simply adopted by the Union. The health laws and ordinances of the previous colonies and republics remained in the statute books of the Union and health services were still governed in the same fragmented and uncoordinated way as had become the trend. A valuable opportunity for unification of the health system was left to pass in this way.

A wave of influenza devastated the Union population in 1918 and again alerted government, as did the earlier epidemics, to the inadequate state of its public health services as provided by an uncoordinated network of provincial and local authorities. This was the driving force behind the proclamation of the Public Health Act (no. 36 of 1919), that established the first Union Department of Public Health in an attempt to coordinate health care more effectively at national level.

However, this attempt was a drop in the ocean of the health system as a whole, as this period was increasingly characterised by specialisation, the introduction of high technology in medical diagnosis and therapy, and the establishment of sophisticated specialist medical institutions, all focusing on scientific, curative medicine. These trends, strengthened by the clear emergence of a predominant chronic-degenerative morbidity profile among, especially, white South Africans, resulted in a serious escalation of medical costs. Those who could pay for it (mainly white South Africans), again received excellent services. Unfortunately, high quality medical services continuously became less accessible to those who could not afford it, and this group comprised mostly of the non-white population. Equity between different population groups became less likely, as the white population, representing the "haves", paid large amounts for good quality health care, while the other population groups, the "have nots", could not afford this health care.

Further intensifying this problem was the fact that, despite numerous calls for a national medical service that would make this situation bearable for the "have nots", most prominent advocates of public health regarded health care for Africans a separate issue, envisaging a separate component of state medical services administered by either a Department of Public Health or Native Affairs. The argument was that it was necessary to maintain the health of the non-white population in order to preserve the future welfare of the country, because this group also represented the work force. The best way this could be attained, according to this line of thought, was through a state health service exclusively for Africans (Van Rensburg *et al.*, 1992: 47-48, 53; Van Rensburg & Harrison, 1995: 55-56). In 1938 the Department of Public Health decided to push for the establishment of a completely segregated health service for Africans, administered jointly by itself and the Department of Native Affairs. In 1940, the establishment of such a "native health and medical service" was already on its way to being established (Van Rensburg & Harrison, 1995: 55-56). With these official measures, racial segregation in the health system was even further entrenched.

2.2.2. Calls for change

The three decades between 1920 and 1950, parallel to developments away from a unified system toward a system exclusively for African people, were characteristic of debate, investigation and review of the existing situation of the health conditions among Africans and the ills of the health care system in general. Constant calls for change towards a more equitable health system based on elements of the PHC approach, were made during this time, with the aim to improve the effectiveness and quality of health care that was available for Africans and

other non-white groups in the country. Promising initiatives toward the fundamental restructuring of health services and policy, were proposed during this time. It involved calls for a shift of emphasis from high technology, intra-mural and curative health care to emphasis on primary, preventative and community health care. The most important in this regard were amongst others (De Beer, 1985; 56-60; Van Rensburg, 1991: 2-3; Van Rensburg *et al*, 1992: 60-61; Van Rensburg & Harrison, 1995: 53; 55-56, 61-63):

- A government appointed consultative council on medical and allied services in Britain proposed a scheme of primary health centres for Britain (1920). None of this ideology filtered through to practical implementation in the country.
- Edward Thornton, British Secretary of Health, made recommendations towards primary health centres for Africans in this country, based on a system of providing cheap PHC for Africans, which would pose no threat to white practitioners. None of this was realised.
- The report of the Loram Commission (1928) clearly stipulated the turn for the worse of health conditions of black South Africans, and called for changes in the South African health system towards a primary and preventive health care approach. A system of health centres as the basis for a "native medical service", was proposed by the Commission, but to no avail.
- The publication of an anonymous pamphlet under the title "Cooperative Medicine" in the early 1940s, created some uneasiness among government officials. The authors of the pamphlet analysed health services in the Union at that time and concluded that medical education was totally oriented towards curative rather than preventive care, thus encouraging competitive private practice; doctors were maldistributed throughout the Union; and the public health service sector was in a sorry state as a result of inadequate financing. The authors went further in declaring that health care was a basic human right to which all people were entitled and that there should be no fee-for-service structure in the public sector, but that the cost of public health services should be met from the general revenue of the state. The pamphlet was severely criticised by some on the grounds of its socialist sentiments.
- Harry Gear made an important contribution to the development of a comprehensive health system, based on preventive and primary health. As the Assistant Health Officer of the Union, he committed the Health Department to a system of health centres, intended to form the basis of a "native medical service", which would provide a comprehensive health service to Africans in the Union. Three such centres were established before 1942 and implemented with successful results. This policy gained much ground and was further strengthened by the recommendations of the Gluckman Commission (1944) report.
- The Gluckman Report (1944) indicated that piecemeal reform of the health system was inadequate, and that only an extensive process of restructuring, which addressed the central flaws of the entire health system, would achieve any substantial improvements in the health of the majority of the population. A functional system of primary health centres, as initially developed by Gear, was the practical envisagement of successful policy implementation at national and provincial level. The appointment of Gluckman as Minister of Health in 1945, ensured government support for the recommendations of the report. By the time of the elections in 1948, forty such centres had already been built.

There are important parallels to be drawn between these initiatives and way of thought, and the post-apartheid health system as the ANC envisages it. Were these initiatives implemented at this time and had they survived the political turmoil, the South African health system would certainly have developed toward a more equitable system years before 1994. But politics is an

all encompassing force that touches and shapes all aspects of a society and its institutions to be in line with the policy of the day. The next era in the development of the South African health system was one of the most notorious ever to be implemented in the world. It wreaked havoc with all possibility of the principles of a NHS, based on DHS implementation with PHC as its foundation, to be implemented. All hopes of equity and equality in health care became especially impossible and discrimination on the ground of race openly became the foundation of government policy.

2.3. The era of Grand Apartheid (1948 - 1990)

2.3.1. Mainstream development

The development of the South African health system after 1948 is aptly captured by: De Beer, 1988; De Beer *et al*, 1988; Price, 1986; Van Rensburg, 1991; Van Rensburg *et al*, 1992; Van Rensburg & Harrison, 1995; and Van Rensburg & Mans, 1982.

In 1948, the National Party won the parliamentary elections in the Union. Although some elements of the apartheid philosophy was laid down long before 1948 even throughout the development of the pre-Union and Union health system, it was the National Party that rendered the policy of racial segregation and separate development official by legalising it as policy.

The resistance groups in the country commenced with an increasingly militant strategy to put pressure on the government to abandon apartheid policy, but the government's answer to this was the adoption of even stricter and more sophisticated means to maintain white supremacy and privilege, also in health care. Health services became, for all practical purposes, an exclusively white enterprise and the Tomlinson Report of 1954, in which a separate "Bantu Health Service" was laid down, marked the end of attempts of previous initiatives to create a unitary health service (Van Rensburg *et al.*, 1992: 57, 64-65; Van Rensburg & Harrison, 1995). The homeland policy (which entailed that ten homelands or bantustans be created for African people where they could, in the boundaries of these homelands, live out their political rights) took shape in the late 1950s. With this policy government restricted the influx of African people to "white" South Africa, because Africans lost their residency in the country as a result thereof and in this way, the financial and social cost of supporting these people were "exported" to the homelands (Price, 1987; 158-170; Van Rensburg *et al.*, 1992: 65).

The Nationalist Party's policy and the refusal to further develop the recommendations made by the Gluckman Report, resulted in the gradual dismantling of the health centre initiative. By the middle of the 1960s, all health centres, established in the time of Gluckman were shut down on account of the initiative representing "socialist elements" (Van Rensburg & Harrison, 1995: 62-63). The leading characteristic of the social organisation of South African health care was white domination and a deep infusion with the apartheid policy. Total segregation ran throughout the health system, professionals were trained at separate institutions according to skin colour and only certain health care facilities were available to African people. These were generally inferior with regard to their physical capacities, physical quality and the quality of care provided (Van Rensburg & Benatar, 1993: 99-111; Van Rensburg & Harrison, 1995: 62-63).

The government further created ten Health Departments, one for every homeland, to govern health care in these areas. This severely fragmented the organisation and coordination of the health system. These areas were insufficiently financed and results thereof blamed on the

inefficiency of the homeland government structures (Price, 1987; 158-170; Van Rensburg *et al.*, 1992: 65-67).

At this time facilities for African people were also run by missionaries (sponsored by European missionary organisations). The South African government, at first, subsidised these facilities in the homelands, which stimulated the activity there and saved the government large amounts of money. In 1973, however, the government nationalised all the missionary health care facilities, which effected withdrawal of missionary support. The Nationalist Government now had to finance these facilities (hospitals and clinics), with tremendous financial implications. This ultimately rendered these facilities, that upheld some sort of quality service provision to African people before the nationalisation, of decreasing quality as a result of understaffing, insufficient financial support, and a lack of equipment. This resulted in a turn for the worse in the health conditions of the non-white population in the homelands (Van Rensburg *et al.*, 1992: 64-69; Van Rensburg & Mans, 1982).

The general situation concerning the African health care client caused further political unrest in the country, as the resistance groups became militant about these and other inequitable conditions. The Nationalist Government gave way and attempted improvement. The first attempt was the proclamation of Health Act (no. 63 of 1977), that directed health policy and system development towards comprehensive PHC, with reasonable access for the entire population and emphasis on the role of local clinics, community health centres, health teams and the training of paraprofessional health workers destined for service in the homelands. The second attempt materialised in the form of the introduction of the *National Health Service Facilities Plan* in 1980. The plan called specifically for better coordination of health care provision nationally, recognition of the role of environmental determinants in health care, the expansion of PHC by means of a network of community health centres and the encouragement of self-care and community responsibility in illness and health. This could be perceived as a giant step towards the "ideal" health system as we know it in the post apartheid health system. Unfortunately, as had other attempts throughout the decades to shift the development of the health system towards PHC, these failed as well. The reason for this failure should be pursued in the general policy framework and atmosphere in which it was implemented. The implementation of major change in the health system towards a more equitable system based on PHC, could only have been successful in a different political, social and economic environment. A society built on division, oppression and exploitation could not accommodate a health service based on unity, equity and equality.

The attempt to accommodate the 1983 tricameral arrangements in the execution of the *National Health Service Facilities Plan* (1980), as embodied in the *National Health Plan* of 1986 (Van Rensburg *et al.*, 1992: 69-70), further fragmented the health system and rendered chances of successfully unification and redirection towards PHC even more remote (Van Rensburg *et al.*, 1992: 69-70; Van Rensburg & Harrison, 1995: 56-58, 62-63).

2.3.2. Change in the policy environment

It was only in the late 1980s that the policy of the Nationalist Government became increasingly more receptive to an "ideal" approach. The introduction of the *National Health Service Delivery Plan* of 1991 incorporated the principles of accessibility, effectiveness, affordability, equity and acceptability in health care. In addition, it sought to develop coordinated referral systems and systematic regional plans for health service development. A strategy for PHC was adopted for

implementation by local authorities, which was an important step towards a more equitable health care system based on PHC principles. Although various attempts were made to stifle this initiative, for the first time since 1946 a political environment that could render the development of such a system possible, came into existence. This "ideal" was too long unrealised and was kept alive by idealists and realists alike, despite existing stumbling blocks. After decades of struggle within a politically unfertile environment, the "ideal" system at last had chance of being implemented (Van Rensburg & Harrison, 1995: 63-64).

3. Development after 1994 - dawn of a new health care system

In April 1994, when the African National Congress (ANC) won the first democratic elections in South Africa, a policy environment came into being that capacitated the possibility of a new health system based on equity, equality and unity. Two fundamental policy documents laid the groundwork for such a health system. They were *The Reconstruction and Development Programme (RDP)* (ANC 1994a), released in April 1994, and *A National Health Plan for South Africa* (ANC 1994b), released in May 1994, both developed by the ANC. Based on these documents a number of policy papers, bills and acts followed.

The basic principles that the new government focused on since 1994 and delineated upon in the above-mentioned documents will be elaborated upon in order to shed more light on what the structure of the new public health sector will focus on in future. It has up to now proved meaningful to bring about real changes in the South African public health sector and changed the direction of health policy development in South Africa towards, after more than 50 years since the first calls for it, equitable health services for all in South Africa.

3.1. The *RDP* and the *National Health Plan for South Africa*

The ANC government inherited a public health sector that was sustained by the apartheid government through the promulgation of racist legislation throughout nearly 50 years. It featured institutions such as political and statutory bodies created for the control of health care professions and facilities, that was built and managed with the specific aim of sustaining apartheid and discrimination in public health care. The government was now faced with the major task of changing the apartheid health system into a new integrated, coherent socio-economic, democratic, non-racial and non-sexist tradition in the public health sector. Within the new policy-framework, a National Health System (NHS), based on the principles of primary health care (PHC), was legitimised and had a real chance of being fulfilled.

Another major challenge facing South Africans since 1994 is to design a comprehensive programme for government from the new policy documents. The programme had to be able to redress social and economic injustices, to eradicate poverty, reduce waste, increase efficiency and to promote greater control by communities and individuals over all aspects of their lives, and in this context, their health and health care (ANC 1994a: 1-2; 1994b: 7; Tollman & Rispel, 1995: 75).

This involved the complete transformation of the national health care delivery system and all relevant institutions. All legislation, organisation and institutions related to health are in the process of being reviewed and changed in order to attain eight basic goal principles. They include the following (ANC 1994b: 7):

- Ensuring the emphasis is on health and not only on medical care.
- Redress the harmful effects of apartheid health care services.
- Encouraging and developing comprehensive health care practices that are in line with international norms, ethics and standards.
- Emphasising that all health workers have an equally important role to play in the health system, and ensuring that teamwork is a central component of the health system.
- Recognising that the most important component of the health system is the community, and ensuring that mechanisms are created for effective community participation, involvement and control.
- Introducing management practices that are aimed at efficient and compassionate health care delivery.
- Ensuring respect for human rights, and accountability to the users of health facilities and the public at large.
- Reducing the burden and risk of disease affecting the health of all South Africans.

It is crucial for these eight principles to be concentrated upon during the entire process of health system reform, as real change and the ultimate success of reform depend on the way in which change is executed throughout. The thoroughness with which every step of reform is taken, will shape the character of the future South African health care system (Van Rensburg & Harrison, 1995: 75).

3.2. A National Health System (NHS) for South Africa: Structure and dynamics

3.2.1. Defining a NHS based on Primary Health Care

The envisaged NHS for South Africa could be defined as a single comprehensive, equitable and integrated health system, with a single government structure dealing with health, based on national guidelines, priorities and standards. All aspects of public and private health care delivery are coordinated in such a system and are accountable to the people through democratic structures. All existing public sector departments of health are integrated with no room for racial, ethnic, tribal and gender discrimination. Both public and private providers contribute to the health system and operate within a common framework that encourages efficiency and high quality care (ANC 1994a: 45; 1994b: 19; Department of Health, 1997a: 13; Van Rensburg, 1998: 171-172; 1999: 1-2; Van Rensburg *et al*, 1998: 2-4).

The development of such a system is, as has been mentioned before, based on a PHC approach. PHC has thus been accepted as the foundation of health care delivery in South Africa (ANC 1994a: 45; 1994b: 20). The International Conference on Primary Health Care held in Alma-Ata in 1978 produced the Declaration of Alma-Ata which included the following definition of primary health care: "Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community" (ANC 1994a: 20).

3.2.2. A district-based NHS

NHS policy in South Africa dictates the decentralisation of certain responsibilities of health services to provincial and municipal levels. To give effect to this mandate, a DHS, in which responsibility for service delivery is entrusted to the district level, is in the process of being established (ANC 1994a: 44-45; 1994b: 59; Department of Health, 1997a: 17; Free State Department of Health, 1998: 3; Van Rensburg *et al*, 1998: 1-4). A DHS could be defined as a vehicle for providing quality PHC to everyone in a defined geographical area. It is a system of health care in which individuals, communities and all the health care providers of the area participate together in improving their own health. Health districts form the building blocks of the NHS (Free State Department of Health, 1998: 3; Health Systems Trust, 1997: 3; McCoy & Engelbrecht, 1999: 132). DHS implementation therefore means, in broad terms, the regionalisation of services and therefore dividing the country and in turn, the nine provinces, into smaller administrative and service units. Authority and decision-making is devolved to district offices, while management autonomy is diverted, as far as possible, to health facility level.

The major implications of a DHS for health care in South Africa will be to: divide all provinces in South Africa into health districts that are geographically coherent, bordering and functional; have one overall health service in each health district that is providing a comprehensive range of services, and that is accountable to local government; have the necessary managerial and financial capacity; develop a single financing mechanism for sustainability and equity; and establish workable structures (Free State Department of Health, 1998: 3). One health authority is responsible for PHC, including community-based services, clinics and district hospitals. Decisions about health care for that district are made by the district's health authority, and not at a higher level of the health department. It is also a system where communities have a real say over their own health care (Health Systems Trust, 1996: 3).

The *White Paper for the Transformation of the Health System in South Africa* (Department of Health, 1997a: 11-12) represents a set of policy objectives and principles upon which the unified, district-based NHS of South Africa will be based. The DHS requires that distinct mandates and functions be assigned to the National Department of Health, the Provincial Departments of Health and the districts/municipalities all over South Africa. The mission and mandate of the National Department of Health includes to provide leadership and guidance to the NHS in its efforts to promote and monitor the health of all people in South Africa, and to provide caring and effective services through a PHC approach (Department of Health, 1997a: 17). That of the Provincial Departments is to promote and monitor the health of the people in the province, and develop and support a caring and effective provincial health system, through the establishment of a province-wide DHS based on the principles of PHC (Department of Health, 1997a: 26).

This study was conducted within the realm of DHS implementation in the Free State. In the following pages, the most important principles, long-term goals, roles, implementation strategies, and functions of the DHS, in its policy context, as well as progress with the implementation thereof in the Free State, will be discussed.

4. The District Health System (DHS)

4.1. National principles of the DHS

A national committee comprising of representatives from national and provincial health departments that was established to develop a DHS for South Africa, has agreed on a number of crucial principles to be followed by planners of such a system. These include the following: overcoming fragmentation; promoting equity; providing comprehensive services throughout the district; promoting effectiveness; economical efficiency; rendering quality services; ensuring accessibility to high quality services for all; be accountable and allow for community involvement and participation; decentralisation of powers and functions; be based on developmental and inter-sectoral approach; be sustainable; and services by other health care providers to be an integral part of the DHS.

These principles are to be heeded at all times by health managers, governors and health care workers at district level, while planning and implementing health care policy and strategies in the DHS (Department of Health, 1997a: 28; Free State Department of Health, 1998: 8).

4.2. Rationale for the DHS in South Africa

The DHS is being implemented in South Africa for five main reasons: firstly, to try and meet the health care needs of everybody. In the past, health care was often provided only to those patients who came to clinics or outpatient departments at hospitals. No real effort was made to establish whether the health services reached everyone in need and in the way they wanted to receive it. Examples of ways in which this situation is aimed to be improved, include access to 24 hour emergency medical services in rural areas, availability of essential drugs, readily available health care with referral to a suitable facility when necessary, acceptable waiting times, an attractive clinic environment, and redistributing personnel to under served and understaffed areas.

Secondly, to provide a simple and logical service and dismantle fragmentation. PHC has up to now been delivered by different departments, for instance, in some areas, local authorities and the provincial health department have provided different services. This has led to fragmentation and other inefficiencies in service delivery. The DHS aims at integrating services.

Thirdly, decisions should be made by those people who have to implement them, thus, local decisions have to be made locally. In the past, decisions about health care in all areas were made by health managers at national and provincial level. The DHS aims to give local people the power to make relevant decisions, for it is they who know their local needs best.

Fourthly, those people who use the services, should be involved in designing these services. In the past, service users had no real say in the services provided to them, no way of expressing their dissatisfaction with these services and were not involved in the planning, implementation and improvement of services. With the implementation of the DHS, they are becoming involved in planning and improving the services they use and have a real say in this. In order to achieve this, health committees that are fully representative of all communities in the district and driven by these communities, are being established.

The fifth and last reason why the DHS is being introduced in South Africa, is because it focuses on improving and optimising health. Like may parts of civil service, complex

bureaucracies have developed in health service management and administration. District health care is meant to shift the focus from administering health services to really improving the quality of care at local level (Free State Department of Health, 1998: 8; ISDS, 1997: 4-5; Van Rensburg *et al.*, 1998b: 2-9).

4.3. Implementation strategies of the DHS

The ultimate health care delivery goal for South Africa, as outlined in the *RDP* and the *National Health Plan*, and subsequently the *White Paper*, is to have a single NHS, based on a DHS. Such a model will facilitate health promotion, provide universal access to essential health care and allow for rational planning and appropriate use of resources.

Health districts will serve both as providers and purchasers of health services and select appropriate strategies on the basis of equity, efficiency and assessment of the relevant local conditions. Peri-urban, farming and rural areas will form part of the same health district as the towns with which they have the closest economic and social links. This could serve as a strategy with which the fragmentation and inequity, created by the past practice of separating peri-urban and rural health services from the adjacent municipal health services, could be avoided.

Furthermore, all public service personnel should serve under standardised service conditions and receive standardised salaries. This is essential in the quest for rationalised services, elimination of fragmentation and promotion of equity, particularly between metropolitan, urban and rural areas. This will be supported by newly devised financing mechanisms, ensuring equitable and sustainable financing of district level health services. The implementation of a DHS should be regarded as a means to an end, i.e. to achieve an equitable, efficient and effective health system based on the PHC approach (Department of Health, 1997a: 28-30; McCoy & Engelbrecht, 1999: 132). It is stated in the *White Paper for the Transformation of the Health System in South Africa*, that "The establishment of the DHS is at the core of the entire health strategy, and its rapid implementation, therefore, is of the highest priority." (Department of Health, 1997a: 29-30).

4.4. Functions of a health district

At the district level of the health care system, every district should be responsible for the management of its own health budget, as well as for the provision of PHC services within the district. Districts will also be responsible for effective referral systems through cooperation among services in the district, as well as synchronisation with neighbouring health districts. Further responsibilities include to ensure that services are rendered in coordination and collaboration with other governmental, non-governmental and private structures. Specific functions of the system on district level could be divided into three categories, which include health care; administrative, financial and support services; and planning and human resources. These functions will now be shortly described (Department of Health, 1997a: 30; Free State Department of Health, 1998: 8).

4.4.1. Health care

The most important of these functions will include to ensure:

- The availability of all PHC and other relevant health services to the users in the district;

- coordination and collaboration with other sectors of government and with NGOs regarding the promotion of health and health services in the district;
- that health promotion and primary environmental health services are provided;
- that community participation is incorporated in the management and governance of promotion and provision of health services; and
- that medico-legal services are available and rendered in collaboration with the relevant authorities (Department of Health, 1997a: 30-31; Free State Department of Health, 1998: 8; Health Systems Trust, 1997: 3-26).

4.4.2. Administrative, financial and support services

The most important administrative, financial and support services will include to ensure:

- The establishment and management of a budget for the health district according to the national and provincial policies and guidelines;
- that support services will be available to all PHC health services and personnel. This will include for instance appropriate facilities for rendering of maternal and mental health services, accommodation for staff where necessary, essential diagnostic services, essential drugs, etc.; and
- the promulgation of health by-laws (Department of Health, 1997a: 31; Free State Department of Health, 1998: 8; Health Systems Trust, 1997: 3-26).

4.4.3. Planning and human resources

The last category of functions of a health district, is that of planning and human resources, which include ensuring that: (Department of Health, 1997a: 31; Free State Department of Health, 1998: 8; Health Systems Trust, 1997: 3-26):

- Appropriate human resource development is provided;
- health and health service provision is monitored and evaluated;
- health information is gathered, analysed and managed at district level; and
- any other health function assigned to the health district, are performed.

5. The DHS in the Free State

5.1. The process of implementing the DHS in the Free State

In most provinces, district structures which will facilitate PHC delivery are taking shape. The first step, however, comprised the geographical demarcation of health districts which allowed all health services, facilities and resources to be reorganised within geographical boundaries, after which planning was commenced for the subsequently well defined catchment populations in the different districts. The preliminary boundaries of approximately 170 health districts have been delineated in South Africa so far, of which 14 are in the Free State (see Map 4: 14 Health districts in the Free State). These boundaries are "soft", which means that they are temporary and could change if practically necessary. A requirement of a well functioning DHS is that a district should contain a population size of between 50 000 and 500 000 people within a manageable geographic area. Populations within the district boundaries already established in the country, range from 125 000 people in the Northern Cape to 300 000 in the Eastern Cape. A DHS with health districts smaller than the given standard, will result in too great a number of districts which

automatically implies greater numbers of management structures. This could render cohesion and coordination difficult as well as that it will cost more to sustain. On the other hand, districts that are too large might become too bureaucratic and operate too far from community level. (Barron *et al*, 1997: xix; ISDS, 1996: 3; 1998: 2; McCoy & Engelbrecht, 1999, 133; Van Rensburg *et al*, 1998b: 4). (Note that after the recent demarcation of Local Authority Boundaries, the boundaries of health district in the country are subject to dramatic changes, so is the number of health districts.)

5.2. Improvement of efficiency and quality of systems and service delivery

There are already a number of well developed plans and policies in the Free State to improve service delivery and systems. They mostly include training initiatives and improvements in the organisation of some services which will lead to better service delivery. The Department of Health has further commenced on a process to try and ensure coordination and integration between its different programmes and sections, as well as defining the appropriate functions of provincial and district levels of government. It is further important to note that the District Health Information System (DHIS) in the Free State (generally known as the tick sheet system) failed about two years ago and the system was phased out. This has been quite a setback to the development of a district-based health information system, but should be seen as giving the province the opportunity to start afresh with DHIS development.

The transformation to a DHS model has up to now been a complex and ever changing process. A focused approached has been followed by the Free State Department of Health, identifying all necessary issues as the process progressed and in the end, proposing a model for the District Health Authority that would suit the Free State situation. The transformation process is being conducted in a four phase pilot strategy: firstly, the development of a model; secondly, testing this model on small scale; thirdly, evaluating this testing; and lastly, to implement the model throughout the province. The last of the four phases are still in progress. Ninety nine different local government structures, six regional offices, fragmented services, duplicated administrations, structures and systems have to be transformed and consolidated into district health authorities, each responsible for a defined health district. The long-term goal of the transformation process is that a single authority and a single district management team, who will be responsible for the planning and management of local health services for a defined population, should be established. With time, all district-level staff should be employed on the same conditions of service. The DHS should be part of local government (*DHS News*, 1997:1; Free State Department of Health, 1998: 6-8; McCoy & Engelbrecht, 1999: 139).

The reform of health services, programmes and health care delivery methods in the Free State, should be perceived as a long term evolutionary process. Its aim is to develop an affordable, client-orientated health system through the enhancement and development of community based health services. Changes are already under way and will further be reflected in indicators such as (Free State Department of Health, 1998: 6):

- Services being closer to communities they serve;
- the rendering of an appropriate range of services;
- different disciplines in health and health related services working together;
- PHC services being driven by professional nurses, and not by doctors as of old;
- patients being treated at the appropriate level of care, for instance, minor ailments should be treated in a clinic and not a hospital emergency room;
- improved use of health related information, for planning, by all levels of management; and
- involving communities in the establishment of services that they are going to use.

Although the DHS, based on a PHC policy, has officially been the gist of health reform in the country for at least the past two years, there is a long way to go before this system could be called a coherent and unified NHS, capable of addressing the health needs of the population, especially those living in poverty. This remains a massive challenge (Free State Department of Health, 1998: 6; McCoy & Engelbrecht, 1999: 132).

In the process of establishing and implementing the DHS in the Free State, two especially important challenges have emerged. Firstly, that of implementation, that is, to translate provincial policy and administrative reorganisation into real improvements in health care delivery at local level; and secondly, to develop effective community participation in health service planning, management and provision.

6. Initiative for Sub-district Support (ISDS)

In order to address these challenges at grassroots level, the Health Systems Trust (HST), in collaboration with national and provincial health departments, initiated a pilot programme of "bottom-up" support to, at first, only a selected number of districts (as pilot sites). This programme is known as the Initiative for Sub-district Support (ISDS). The purpose of the ISDS is to (Barron *et al.*, 1997: xix; ISDS, 1996: 1-3; 1997: 2; 1998: ii):

- Demonstrate the impact of a process which deliberately and systematically addresses factors affecting the quality of care at local (district) level;
- support and strengthen the capacity of both public sector and non-government health providers;
- strengthen the capacity of communities to participate in governing and managing health services;
- fully utilise technical resources, both locally and on district, regional, provincial and national level; and
- support health systems reform at local level.

Without the ISDS - which embodies a deliberate, systematic programme of support to district and sub-district health services - districts may remain administrative entities, rather than agents of optimal health care. Harrison of the ISDS once put this strikingly with the following statement: "Without a very deliberate focus on the sites of service delivery, health districts risk becoming structures of bureaucracy, rather than instruments for improving the quality of PHC. That's the thinking behind the Initiative for Sub-District Support, which aims to demonstrate how sustained, multi-pronged support can have a positive impact on the quality of care in selected districts throughout South Africa" (*DHS News*, 1997: 2). With the support promised by the ISDS, districts and sub-districts can become forces of health care reform, driven by motivated health workers and communities equipped to respond to local health priorities (ISDS, 1996: 3; 1997:2-3).

6.1. Criteria for the selection of the first ISDS sites

Originally, seven sub-district sites were selected with the inception of the ISDS in South Africa. At the moment, there are 19 ISDS sites across the country (see Map 7: ISDS sites). Two of these pilot sites are in the Free State, namely the Tshepano health region which includes Tshepo and Kopano health districts (Bothaville area is located here) and the Hlanganani (Harrismith area) health district. The National Department of Health selected ISDS sites according to certain criteria, which included (ISDS, 1996: 23):

- The area should be in dire need of support, which entails that it should be underresourced relative to other sub-districts;
- there should already be a district manager appointed for the specific district in which the sub-district is located;
- the district and regional managers should fully support the ISDS;
- a community participation history should have existed previously in the sub-district environment; and
- existing local authorities should be in full support of the ISDS.

6.2. Key elements of ISDS support

In each of the targeted districts and sub-district sites, ISDS consists of seven support components, which are customised to respond to the needs of each individual site. These seven components include evaluation, communication, technical support, information, facilitation, participation and research (*DHS News*, 1997: 2; ISDS, 1996: 15 -22; 1997:1).

6.2.1. Evaluation

The ISDS seeks to develop sustainable ways with which health care delivery at local level, could be supported and transformed. Impact measures, linked to selected strategies, and baseline indicators are identified when the initiative is implemented in a health district. Documentation and information dissemination are built into each strategy developed for a sub-district and the execution thereof is the responsibility of the ISDS facilitator in the given district and sub-district (*DHS News*, 1997: 2; ISDS, 1996: 18).

6.2.2. Communication

The application and use of electronic communication plays an important supportive part at every site. "HealthLink" (a computerised communication system linking health services and management structures) points are located within key facilities and organisations within each district and sub-district, and linked to support structures, which include for instance the district office (*DHS News*, 1997: 2; ISDS, 1996: 18).

6.2.3. Technical support

In order to improve skills and ensure the implementation of desired changes, specific technical support is given in each district and sub-district. A variety of trainers are systematically training local health workers. After completion of courses, contact and support is sustained through electronic communication (*DHS News*, 1997: 2; ISDS, 1996: 19). Technical support is aimed at

capacity building in a variety of areas within the district and sub-district, which includes the broad themes of improving the following components of the health system:

- Improving the understanding of public health - An organisation or individual is contracted to work with district/sub-district teams, to describe the community of that sub-district, identify and assess the magnitude of priority health problems, plan and implement strategies to address these problems, and monitor, evaluate and chart improvements over time.
- Improving management systems - Organisations or individuals are contracted to provide management support. Examples of the areas in which management support is provided, include information systems, cost-centre management and accounting, pharmaceutical and stock management, human resource management, transport management and the involvement of NGOs and CBOs.
- Improving health services - Technical support is commissioned to improve the effectiveness and efficiency of health services in the given districts and sub-districts. Some of the key interventions are training, rational drug use and prescribing, implementation of management guidelines, and the establishment of channels for referral and advice.

6.2.4. Information

The information initiative links health workers, managers, governors and community members to information sources that address a wide range of health information needs. Information sources include "HealthLink" and newsletters that are widely distributed throughout health ranks. The kinds of information available through these links, include policy and problem solving information and information for continuing education and research (*DHS News*, 1997: 2; ISDS 1996: 21-22).

6.2.5. Facilitation

The support process is guided and developed by a facilitating team. This process of guidance entails identifying obstacles and ensuring adequate technical support throughout the implementation of change. This facilitating team is jointly selected by the ISDS Programme Director, the Free State Department of Health and key local role players. An ideal situation is to appoint District Health Management Teams as facilitating structures for the process. This ensures that the ISDS becomes fully incorporated into formal district strategies, processes and structures of DHS development (*DHS News*, 1997: 2; ISDS, 1996: 22).

6.2.6. Participation

An important characteristic of the ISDS, is that it is not a rigid strategy. It is flexible at all points of implementation, in order to remain open and transparent to local inputs and solutions to problems and difficulties experienced in every individual health district. (*DHS News*, 1997: 2; ISDS, 1996: 22). It should be kept in mind that the strategies delineated above are key elements necessary to structure the process of district and sub-district support. Should there arise factors impacting on the standard of health care delivery which could not be solved by the given strategies, though, measures to address such factors are developed according to need by the given district's ISDS structures.

6.2.7. Research

An important part of the ISDS is the relevant operational research, aimed at improving service delivery, which is done in each site. Substantial technical and material resources have been and still are committed to this component. Key strategies and priorities are first identified in each site, on the basis of which the ISDS team, together with the local management and governance structures decide on what research is imperative for the site and this research is then contracted out (*DHS News*, 1997: 2; ISDS, 1996: 15 - 18).

It is from this support component of the ISDS that the empirical part of this study originated and forms part, as was discussed in Chapter 1 (under *Rationale of the study*). But first it is deemed necessary to look briefly at what has been achieved up to now regarding transformation of the South African health system, as well as the impediments regarding the implementation of the new system. This will be discussed over the next pages.

7. Critical evaluation of the position and progress of the implementation of the DHS and PHC

7.1. Problematic aspects of transformation

Since the inception of the ANC government in 1994, fundamental health reform was indeed realised in South Africa. There are, however, problematic aspects of the health system that were to a lesser extent or not at all touched by the changes, and are thus still developing in the same direction as was the case in the previous dispensation. In the following pages the most important of these reforms will be delineated, as well as problems related to the implementation of the reforms. This situation was recently reconstructed by Van Rensburg (1998: 171-187; 1999:1-26). In this regard the following work is also relevant: Abbot, 1997; ANC, 1994a; 1994b; Department of Health, 1996a; 1996b; 1997a; 1997b; Mametja & Reid, 1996; Ministry of Provincial Affairs and Constitutional Development, 1998; Owen, 1995; RSA, 1996; Ruff, 1997; SAIRR, 1994/95; Sharp *et al*, 1998; Van den Heever & Brijlal, 1997; Van Niekerk & Sanders, 1997; and Van Rensburg *et al*, 1992.

As has been mentioned before, two main policy frameworks steer the reforms in the South African health care system, they are the PHC policy and the development of a DHS. Captured in these policy frameworks are guidelines to redress the deficiencies that were created during the distorted historical development of the South African health care system. The most important changes that have resulted from the reform since the implementation of the new health plan, include the shift in emphasis of level of care; redistributing sources and redirecting patients; decentralising care; eradicating fragmentation; abolishing apartheid; improving accessibility and affordability of services; and involving communities in public health structures. Although most of these aspects of health care reform have been mentioned before at some or another stage in this document, it is necessary to discuss it in one place in order to gain a clear perspective. It is further deemed necessary to include some practical examples of changes achieved thus far.

7.1.1. Shift of emphasis regarding level of care

PHC entails a focal shift in health care delivery from secondary and tertiary levels of care to the community, patients and primary care. Therefore, there is also a rearrangement in the importance of the levels of care. In the public sector increasing emphasis is being placed on first-

line care and facilities (mostly PHC clinics), with a more pronounced positioning of district and regional hospitals to support the PHC referral network.

Concrete achievements up to this stage include, for instance (as part of the Clinic Building and Upgrading Programme) that more than 450 clinics had already been built by 1997, which reduced a backlog of 1 000 clinics in the country by nearly half. Good progress has also been made regarding diverting the health budget away from specialised and tertiary academic complexes to PHC. Since 1994/95 the health budget was allocating a larger percentage of funds to PHC (Van Rensburg, 1998: 173; 1999: 5).

7.1.2. Redistributing sources and redirecting patients

Hand in hand with the shift in emphasis with regard to the level of care, go, firstly, the redistribution of sources in the health system, that pertains to the equalisation in the geographical, racial and socio-economic distribution of personnel and facilities, therefore a large-scale resource reallocation, and secondly, an appropriate flow and referral of patients to the various providers and facilities. Patients using the public sector services are to enter the system at the lowest level of care, which is PHC clinics, from where they will be referred further upwards to the higher levels of care if necessary (Van Rensburg, 1998: 175; 1999: 8-9).

7.1.3. Decentralising care

The DHS represents the organisational basis for the new South African health care system and in broad terms, as has been mentioned in the previous chapters, it entails the regionalisation of services. It divides the country into smaller administrative and service units. Authority and decision-making is increasingly devolved to regional and emerging district offices. District Health Authorities are to take responsibility in both the determination of health care priorities and the allocation of funds in their areas of jurisdiction.

7.1.4. Eradicating fragmentation

As has been mentioned before, the previous dispensation of health care organisation and delivery was geographically, structurally, racially and regarding authority, extremely fragmented, consisting of 14 health authority structures, one national, ten homeland and three affairs ministries. This situation has been changed by unifying all these ministries under one NHS that oversees, supports and coordinates the entire health system. The nine provincial governments now embody a decentralised system, with more power entrusted to them. Every provincial government is now developing, coordinating and supporting its own emerging health districts which are in coming years are to assume more responsibility for the health of their local communities. This process is not completed yet and the publication of the *White Paper on Local Government* (Ministry of Provincial Affairs and Constitutional Development, 1998) introduced a new phase in the restructuring of the health system, shifting the emphasis of responsibility for PHC to local authorities and communities. This implies the integration of currently fragmented provincial and municipal health structures to consolidated district structures supported by cooperative government structures (Van Rensburg, 1998: 174; 1999: 6-7).

7.1.5. Adjusting white and male domination in authority structures

The new Department of Health unmistakably succeeded in dismantling apartheid structures, laws and measures to a large extent in the very short time since its inception in 1994. This was achieved by implementing a strict affirmative action strategy that incorporated the Africanisation of the public health sector with accompanying sensitivity for gender (feminisation). Management structures were, before 1994, dominated by whites and males, with 90.2% of management staff having been white and 87.8% of all managers having been male. Within approximately four years a staff corps reflecting the population composition more accurately, was in place. Africans, Indians, coloureds, as well as women, who were all historically underrepresented in the authority structures, feature more prominently and even overwhelmingly in some instances (Van Rensburg, 1998: 174-175; 1999: 7-8).

7.1.6. Improving accessibility and affordability of services

One of the characteristics of the previous dispensation in South African health care, was the expansion and strengthening of the private sector in health care to alleviate the burden on the state by curbing state expenditure and scaling down the public sector. In contradiction to this, the new ANC led government vigorously opposes private-for-profit health care (since the publication of the ANC Freedom Charter in 1955). In order to bring about equity and accessibility, and to remove financial barriers to access for vulnerable groups, free PHC health services were phased in and are expanded to higher levels of care for economically disadvantaged clients (Van Rensburg, 1998: 176; 1999: 9).

7.1.7. Involving communities in public health structures

The previous health dispensation was characterised by a top-down, authoritarian approach excluding in particular the non-white population from policy and decision-making processes. These processes in public health governance are undergoing significant restructuring, to render it a more community and grassroots driven process. The new policy strongly focuses on empowering communities and NGOs to participate actively in planning, prioritising and monitoring PHC services in their own communities and areas, and to take greater responsibility for their own health. Participation of this nature has been instituted by the creation of formal and informal health and intersectoral forums, boards and committees of all kinds and at national, provincial, regional, district, local and facility levels (Van Rensburg, 1998: 176-177; 1999: 9-10; Van Rensburg *et al*, 1998a: 19-21).

7.2. Impediments regarding the implementation of the new health system

Judging from the previous compilation by Van Rensburg (1998: 171-187; 1999:1-26), it could safely be concluded that major reform has been achieved by the new government concerning health care in a relatively short time. However, the government has been facing numerous impediments regarding the implementation of the new system and certain aspects of the reform remain problematic. Areas of concern occur throughout the health system and could be clearly perceived in some areas. A number of these areas were identified by especially Van Rensburg (1998: 171-187; 1999:1-26) and Gaigher (1998: 41-53) and a summary of what they found will be provided over the next few pages. These areas include the health budget, affirmative action, quality of health care, medical doctors in the public health sector, unsuccessful facilitation of

unity, health care facilities, insufficient implementation of programmes, the development of health districts, and information systems. The following authors provide greater detail: Barron *et al*, 1997; Begg, 1997; Benatar, 1997; Buthelezi *et al*, 1997; Crisp, 1997; Department of Health, 1997c; Floyd, 1997; Gaigher, 1998; Harrison, 1997, Jacobs *et al*, 1997; Levendal *et al*, 1997; McCoy & Barron, 1996; McCoy & Khosa, 1996; McCusker, 1997; Naidoo, 1997; Rob *et al*, 1997; Ruff, 1997; SAIRR, 1997; Smith & Niedermeier, 1997, Stuurman-Moleleki *et al*, 1997; Van den Heever & Brijlal, 1997;Van Rensburg *et al*, 1992; Wildavski, 1977; and Wolvardt & Palmer, 1997.

7.2.1. Budgetary constraints

With the implementation of PHC as part of the NHS, the National Department of Health devoted itself to changing the South African health system to a more equitable, accessible and efficient system. Such a policy shift, however, also meant that the entire South African health system had to be restructured in line with the new policy, which included tremendously costly processes, a few of which include the shift in allocation of resources in order to make free basic health services for all South Africans a reality and accessible; the creation of structures to facilitate grassroots and community involvement in the governance of health systems; upgrading clinics in historically disadvantaged areas (for example the former homeland areas); creating provincial and district based health management structures; and many more. These and other such changes in the system render the implementation of the NHS (which includes DHS and PHC implementation) in South Africa, an expensive process (Barron, 1998: 3; Gaigher, 1998: 42; Van Rensburg, 1998: 179; 1999: 14).

7.2.2. Affirmative action

Affirmative action towards greater racial and gender representivity was widely implemented throughout the health care system to bring about fairness and equity, that was nearly non-existent under the previous dispensation, as was seen in the first part of this chapter. Although this is the only way to dismantle the effect of apartheid in health management structures, major problems were experienced regarding the implementation thereof. The causes of the majority of these problems could be ascribed to the fact that inexperienced staff were introduced and experienced staff dismissed, while those staff members who did not loose their positions altogether, were greatly demotivated as doors to promotion possibilities were closed to many of them. As a result of this, there was a suspected drop in standards in the bureaucratic structures of health, and more generally public health services were collapsing. Attempts were made to salvage this situation by introducing, for example, management training. A number of different management training courses were initiated. The fact that these courses were not coordinated and were without an umbrella framework, little coherent strategy on how to tackle this need for training and no benchmark standards for management training and a lack of accreditation, are seriously hampering these efforts (Barron, 1998: 5; 1998: 179; Van Rensburg, 1999: 13).

7.2.3. Quality of public health care

The implementation and extension of PHC services in South Africa means more than ensuring that there are enough clinics, nurses and drugs to render PHC services accessible to all in South Africa. Some aspects of the health system were not sufficiently touched by the transformation of health care, one of which is the two-class character of the health system, with a weak public

sector rendering a generally inferior quality service to the majority of the population who are dependent upon the state for their health care, while the private sector is rendering a service of an excellent quality to those who can afford health insurance or who are financially strong. There are signs that the public sector is weakening as a result of a wide array of impediments it is faced with.

At the moment in South Africa it seems that too much emphasis is concentrated on those projects and programmes of which the benefits can be measured in the short term, such as the establishment of clinics, upgrading existing clinics, feeding schemes, and other immediately measurable outputs rather than concentrating on planning long term projects and programmes for improving the health of the average South African. In this way, it could be said that health has become equivalent to equal access to medicine, and therefore it seems like the government is trying to equalise access to medicine whether or not this means that the nation's health is improving. In this process of equalising access to health, the government is seemingly forgetting about quality of health care rendered at PHC institutions (Gaigher, 1998: 43; Van Rensburg, 1998: 180; 1999: 15).

7.2.4. Unsuccessful facilitation of unity

The new government has up to this stage been unsuccessful in creating unity among the different role players and stakeholders in the health sector. This undermines the results on otherwise sound initiatives. The health arena is negatively affected by contradicting interests among the public and private sector, conflict and contradiction among national, provincial and local spheres of government, conflict between local government structures and civil organisations, unfulfilled expectations of traditional healers, and frustrated interest of private sector providers and pharmaceutical companies. Estrangement and division are in most cases the outcome of such conflict, an example of this being the continuous clashes between government and the health profession regarding matters such as compulsory community services and the importation of Cuban and other African doctors to serve the public sector (Van Rensburg, 1998: 179; 1999: 14).

7.2.5. Facilities and personnel

Numerous facility related problems have been encountered since the inception of the ANC policy. This includes problems relating especially to hospitals and PHC clinics. Problems relating to hospitals include that hospital services were decreased before the PHC system reduced the number of clients requiring these services, and tertiary services were restricted before secondary hospitals were functioning efficiently. Furthermore, hospital budgets have been cut by 9% overall, and although this makes sense in terms of a greater emphasis on PHC facilities, the decrease in demand for hospital services have not taken place to a large enough extent as yet. On the contrary, the introduction of free health care for children under six and pregnant women, as well as the legalisation of abortion, has increased the demand for hospital services. The scaling down of hospital services in urbanised areas are further not in line with the progressive chronic disease profile of urbanised populations, which call for more hospital care.

A further contributing factor is the onslaught of people from especially sub-Saharan Africa since the discontinuation of influx control legislation on the South African health system. Not only do these legal and illegal immigrants who are streaming into the country put additional strain on

the reduced hospital capacity, they also contribute to the increase in a variety of diseases, particularly tropical-related diseases and STDs. Added to this is the increasing need for trauma and emergency services as rendered by hospitals as a result of high and progressively escalating levels of violence in the country.

An equally serious concern is the lack of managerial skills of hospital managers, which leaves the hospital system with very little or no measures to ensure that the money available to these services, is well spent. With the inception of the new government, hospital managers were appointed to reflect the new dispensation and transformation taking place rather than reflecting on adequate managerial skills. McCoy & Barron (1996) once called the South African health system an "overloaded, cash-strapped health system" and when looking at problems experienced in South African hospitals, one tends to agree.

Problems relating to PHC clinics include that the facilities in urban areas are still superior to those in rural areas, in terms of the availability of services and drugs as well as in terms of health professional to population ratios (Barron, 1998: 4-5). Although, as has been mentioned, more than 450 clinics have been built in rural areas recently, a considerable percentage of these clinics are not operational and all the necessary infrastructure is not in place. Problems like a lack of personnel, lack of water, electricity, telephone lines, etc. are hampering effective service delivery. Less than half of the South African clinics are visited by a doctor every month while most clinics do not have sufficient or sufficiently trained staff to render a 24 hour service (Barron, 1998: 5; Gaigher, 1998: 46-47; Van Rensburg, 1998: 179, 181; 1999: 14, 16). A further problem is the fact that very little or no use is being made of community health workers to support the PHC system.

Furthermore, in 1997 less than 2 000 nurses and 1 000 doctors graduated at South African nursing and medical training instutions (Barron, 1998: 5). The PHC approach calls for significantly greater numbers of nurses than doctors, and some long term strategic human resources development planning will have to be done in order to produce more nurses. At this stage, there is a lack of a coherent strategy to eradicate the enormous backlog. There is no consensus on exactly what type of training nurses need in order to function at clinic level. Different institutions offer different PHC courses of varying length, content and standard and the number of nurses currently being trained are inadequate. Nurses are also mostly trained in large hospitals with the emphasis on a medical rather than a public health model and this leaves them unprepared for the delivery of PHC in clinics as they had curatively oriented training. Lastly, little or no use is made of community health workers to support the PHC system (Barron, 1998: 1; Kortenbout, 1998: 51-62; Moomal & Edwards-Miller, 1998: 45-50).

Added to all the above mentioned problems, are problems related to clinics which include that clinics are in general overcrowded; in some parts and instances frequently short of supplies and equipment; staff morale and motivation are generally poor; working conditions unfavourable; and staff are frequently absent from work because of their wide involvement in restructuring and having to attend additional training workshops. All these factors cause quality of service at clinics to be of a lesser standard (Barron, 1998: 5; Gaigher, 1998: 46-47; Kortenbout, 1998: 51-62; Moomal & Edwards-Miller, 1998: 45-50; Van Rensburg, 1998: 179, 181; 1999: 14, 16).

7.2.6. Medical doctors and the public health sector

In order to reduce the rural/urban disparity regarding the distribution of doctors in the country, the government introduced a two-year compulsory community service period for medical students

before they can practice. The government has been criticised that they are in this way forcing doctors to stay and fulfil their "responsibility" toward fellow South Africans, because they cannot afford to pay the "decent" salaries. Addressing the problem will include strategies such as making public sector posts (especially in rural areas) attractive financially and otherwise, which at the moment they are not, and in this way gaining the loyalty of emigrated and alienated doctors (Gaigher, 1998: 44-45; Makan, 1998: 63; Van Rensburg, 1998: 175; 1999: 8-9).

7.2.7. District development

What the DHS entails, has been discussed throughout this document, and although it makes sense to implement such a system for the sake of decentralising health care, it could be said that it has been implemented without the necessary supporting structures being in place. Numerous examples to support this statement follow.

Regarding **organisational problems**, the following prevail: the NHS is designed for functioning on a national and not a provincial basis, which aims at PHC within a decentralised district health delivery system, while the fact that the provincial government structure has nine departments of equal status, causes misapplication of resources, duplication and internal conflict. There is no single authority that can be held accountable for a budget financing all PHC services and no financial system for the allocation of budgets on a geographical basis, while there are no minimum norms and standards for PHC to be linked to available budgets. Furthermore, there is no information system regarding the subsidies, budgets and actual expenditure of local governments nor are there any standards for dealing with these matters on the basis of equity.

Furthermore, the decentralisation of control in health care to District Health Authorities is problematic in the sense that these authorities might not be capable, at this stage, to assume responsibility for the entire spectrum of comprehensive primary health services. This is especially so in the light of the dire state, including weak management capacity, poor infrastructure and major financial problems (fuelled by shrinking intergovernmental grants and non-payment for services by surrounding communities), in which some of these local governments find themselves in. There are no uniform conditions of service for personnel serving in a district (some work under Local Authority conditions and others under provincial government conditions). Lastly, there is no system for cooperation, neither for integration of the Department of Health, Public Works, and Public Administration (Gaigher, 1998: 45; Van Rensburg, 1998: 181; 1999: 16-17).

Regarding problems pertaining to the **demarcation of districts**, the following prevail: there is some confusion in parts of the country regarding the exact geographical location of district borders and some hospitals and clinics have no clarity about the provincial jurisdiction under which they fall and which patients they are supposed to serve. From the client's point of view, they are frequently uncertain about the referral system and where they are supposed to receive health services, i.e. under which district they fall and which specific facilities they are supposed to utilise. Therefore they sometimes find themselves travelling long distances to health services only to be shown away on arrival because they are supposed to use another service in another area. Although some health services show patients away when it is used incorrectly, patients cannot be prevented from making use of better facilities in urbanised areas, many of them may even lie about their origin and the area where they live in order to be able to use these facilities.

Because budgets are allocated to hospitals according to local population figures, this creates very serious financial problems for these hospitals and has a detrimental effect on service provision and staff morale (Gaigher, 1998: 45-46).

7.2.8. Insufficient implementation of programmes

In order to attempt to promptly deal with the most serious problems relating to the health of the nation and to look after the needs of the most vulnerable groups, numerous health programmes have been introduced, especially regarding HIV/AIDS, TB, immunisation, nutrition and mother, child and women's health. Many policies with complete sets of clear objectives and targets have been set in this regard. However, judging by the extent to which such problems persist, the implementation of these policies is far from adequate and the performance records leave much to be desired. Although the intent has thus been provided, the transformation thereof into practice that can make an impact, is direly needed (Van Rensburg, 1998: 181; 1999: 17-18).

7.2.9. Information

Underlying any understanding of the inequities in the health system and the eventual planning to remedy these, is the need for reliable information of all aspects of the health system, which includes finances, human resources, facilities and drugs as well as patient related information. An inherited (from the previous centralised information system) lack of an "information using culture" to make decisions is causing major lapses in information. With the implementation of the DHS it has become imperative that accurate information be available for the purposes of planning health services. Therefore, serious effort is being invested in training health workers at all levels of the system to understand and use information.

During 1998 especially, there have been significant advances regarding the improvement of hospital information systems. The establishment of district information systems have been less successful though, with failure being experienced in numerous districts. However, in some districts it has been proved that workable information systems can be implemented with success as well as minimum cost. Now the problem is how to implement this in all health districts, so as to obtain consensus around minimum data sets and indicators, as well as with the support of senior management (Barron, 1998: 5; Van Rensburg, 1998: 182; 1999: 19).

When looking back at the discussion in this section of the literature study, it should be concluded that, although major steps were already taken with regard to health reform and much has been achieved as yet, a long and difficult way lies ahead to really render South African public health care of a higher quality, more accessible and equitable to South Africans dependent thereupon. It could not be argued, however, that transformation is strongly on tract, and that the face of South African public health care has already changed irreversibly.

Chapter 3

BACKGROUND INFORMATION TO THE BOTHAVILLE SUB-DISTRICT AND THE HEALTH SERVICES RENDERED THERE, WITH SPECIAL EMPHASIS ON THE MOBILE CLINIC SERVICES.

1. Geography

Bothaville sub-district is part of the Tshepo health district, which consist of five magisterial districts, of which Bothaville (Kgotsong) is one. The others are Boshof (Seretse and Kareehof), Bultfontein (Phahameng), Hoopstad (Tikwana) and Wesselsbron (Monyakeng). There are seven towns in Tshepo, five of which serve as magisterial districts as they were mentioned, and the other two are Dealesville (Tswaranang) and Herzogville (Malebogo). The adjacent township of each of these towns is mentioned in brackets after every town name (see Map 5: 14 Health districts with Bothaville sub-district). Tshepo health district forms part of Health Region C (Tshepano) in the Free State, which is divided into two districts, the other being Kopano (see Map 6: Tshepano health region, divided into Tshepo and Kopano health districts).

Bothaville is located in the most north western corner of the Free State, on the banks of the Vals River. The founding of Bothaville was motivated by secession from the Kroonstad congregation. It was established in 1891 on the farm Gladdedrift, for a while called Botharnia and officially named Bothaville and recognised as a town in 1893. The first town management was elected in 1894 and in 1913 it was replaced by a municipality, with its own town council, permanent officials and committees. Kgotsong is the relatively large township in the Bothaville sub-district and is situated more or less three kilometres on the eastern side of Bothaville (Chao, 1998: 1-2; Van Rensburg *et al.*, 1998a: 7, 9).

Bothaville sub-district harbours a predominant agricultural and farming community, with the farming and agricultural activities focusing on the production of maize, sunflower, groundnut, soy bean, sorghum, sheep and cattle.

2. Demography and economic indicators

The population of the district revealed a positive growth between 1991 and 1997, with the rural population figure growing from 46 866 in 1991 to 51 504 in 1997 and the urban from 18 661 in 1991 to 21 852 in 1997. The total population in the area was therefore 73 356 people in 1997 (Van Rensburg *et al.*, 1998a: 12; Demographic Information Bureau, 1997). Bothaville sub-district had a poverty gap of 33 098 in 1993, as shown in comparison to the four other magisterial districts in the Tshepo health district, in Table 3.

Table 3: Poverty gap in Tshepo per magisterial district

Magisterial District	Poverty gap* (R'000)
Bothaville	33 098
Boshof	18 257
Bultfontein	16 392
Wesselsbron	16 092
Hoopstad	14 747

*Whiteford *et al.*, 1995
*Poverty gap is a tool that measures poverty, indicating how far each individual is below the poverty line. It specifically measures the amount of money needed to bring the income of the poor person up to the line of poverty. It is calculated by summing the difference between the income of each poor household and the poverty line (Van Rensburg *et al.*, 1998a: 13).

As can be derived from the Table 3, Bothaville is by far the poorest magisterial district, while the poverty gap of Hoopstad is the smallest.

3. Public health services in the Bothaville sub-district

3.1. Governance, management and administration of public health services in Bothaville

The governance and health management structures in Tshepo health district, were, at the time of this study, not yet established. The Free State Department of Health and the Bothaville Local Authority were still responsible for the provision of health services in the sub-district and it was managed by the regional office of Region C (also known as Tshepano Health Region with its head office in Welkom).

Governance and health management structures relevant to the Bothaville sub-district, can be classified under two headings:

- **Local government structures** – They include the Free State Local Government Association (FRELOGA), the Transitional Local Council (TLC), the Transitional Rural Council (TRC) and the District Council (DC). FRELOGA is an umbrella body representative of all local governments in the Free State and aims to promote good local government, sound local administration and management, suitable development within a democratic environment and makes recommendations on legislation and policies of government which affect the interests of the area. The Bothaville **TLC** is a democratically elected political representative structure that governs local affairs, and at this stage takes some responsibility for the health of the people in the magisterial district, as does the **TRC**, which is also a politically representative democratically elected governance structure, but focuses on rural issues. Bothaville sub-district, as part of Tshepo health district, falls under the Goldfields **DC**. A district council is an umbrella structure encompassing both urban and rural councils within a particular geographical region and also serves as an administrative mechanism for the Vetvaal TRC, under which Bothaville magisterial district falls.
- **Health governance structures** – Legislative representation in health is facilitated by and manifested through the **Provincial Facilitating Committee (PFC)** in the Free State. At

district level it is facilitated by the **District Facilitating Committee (DFC)**, which is a health governance structure representative of the community (80%) and health officials (20%) in the Tshepo health district. The duties and responsibilities of the DFC of Tshepo could be summarised as being that of a 'watch dog' overseeing and guarding the health-related interests of the people in the district. At community and facility level, governance structures take the form of **community health forums, clinic committees, hospital boards** and **nutrition committees**. These structures consist of a majority of community representatives, whose task is to oversee the general health situation of the surrounding community. At the time of the study, there was a health forum only in Kgotsong and the Bothaville Clinic was served by an active clinic committee. No nutrition committee or hospital board was active in the area (Free State Department of Health, 1998: 19-22; Ministry of Provincial Affairs and Constitutional Development; 1998: 4-7; Van Rensburg *et al.*, 1998a: 17-21).

3.2. PHC clinic services

PHC in Bothaville is mostly rendered by fixed and mobile clinics. The fixed clinics are run by the Local Authority of Bothaville and the mobile clinics, by the Free State Department of Health. Clinic services in Bothaville, as in the rest of the Free State, are notably fragmented due to them resorting under different authorities, rendered by different staff contingents employed by different employment bodies, each having separate working conditions and separate pay-rolls. As has been mentioned previously, the goal of the DHS is to consolidate all public health care services under one authority and this process is in progress in Bothaville. This research project also serves to inform this integration process, as will be seen in the section containing the results of the study done among health personnel in Bothaville.

The type of services provided by PHC clinics consist of the following components:

- Reproductive health which includes family planning and TOP services.
- Maternal/Child and school health.
- Nutrition programmes.
- Communicable diseases, including Tuberculosis and HIV/AIDS/STD programmes.
- Health promotion.
- Mental health/psychiatric services.
- Immunisation (Expanded programme of immunisation or EPI).
- Genetics programme.
- Minor ailments (Van Rensburg *et al.*, 1998b: 57-58).

3.3. Fixed clinics

There are three fixed clinics in Bothaville sub-district, one of which is located in the urban area of Bothaville, and two in Kgotsong (the township adjacent to Bothaville). The staff components of the clinics are delineated in Table 4.

Table 4: Staff components of Bothaville fixed clinics

Name of clinic	Professional nurses	Assistant nurses	General assistants	Clerks
Bothaville Municipal	4	1	1	1
K. Maile	6	3	1	-
Kgotsong	5	-	3	5
Total	**15**	**4**	**5**	**6**

Source: Van Rensburg *et al.*, 1998b: 90-91

The total number of professional nurses working in fixed clinics in Bothaville, amounts to 15, while 4 assistant nurses, 5 general assistants and 6 clerks (of whom 5 are strangely employed by Kgotsong Clinic), are serving the sub-district community there. The total number of staff employed by the fixed clinics, amounts to 30 (Van Rensburg *et al.*, 1998b: 60).

3.4. Hospital services

One of the two district hospitals in Tshepo is located in Bothaville (the other one being located in Hoopstad). The Bothaville hospital has 54 beds and its staff component is shown in Table 5.

Table 5: Staff component of the Bothaville hospital, per staff category and posts available and posts filled

Staff category	Posts filled
Medical staff	
Senior/principal medical officer	0
Medical/dental superintendent	0
Chief professional nurse (matron)	1
Senior professional nurse	11
Senior enrolled/staff nurse	5
Senior/principal nursing assistant	21
Senior/principal pharmacist	1
Health therapist (senior radiographer)	1
Specialised services auxiliary	0
Sub total	**40**
Other staff	
Senior administrative officer	1
Senior administration clerk	7
Housekeeper supervisor	0
Food services supervisor	1
Food services aid	4
Senior artisan	0
Senior general foreman	1
Tradesman aid	1
Security guard	4
Cleaner	12
Messenger	1
Laundry aid	2
Sub total	**34**
Total	**74**

Source: Van Rensburg *et al.*, 1998b: 46-47

Of the 74 posts filled at the hospital, 40 are health personnel and the rest are administrative, housekeeping and general maintenance staff. The nursing staff members of the hospital consisted of 1 chief matron, 11 senior professional nurses, 5 senior enrolled or staff nurses and 21 nursing assistants, composing a nursing component of 38 members, while 2 posts available for medical doctors were not filled at the time of the study. The remaining 2 health posts were that of a pharmacist and a radiologist.

3.5. Specialised health services

Specialised health services in Bothaville are hampered by a lack of personnel and funding, which obviously results in insufficient service delivery. Some of the specialised health fields are in a more unfavourable situation than others, as will be illustrated:

3.6. Clinical medical services

At the time of the study, the clinical medical services in the public sector of Bothaville consisted of one full-time district surgeon, one sessional doctor, two full-time Cuban doctors and two hospital doctor posts which were shared in sessions by six doctors (Van Rensburg *et al.*, 1998b: 90-91).

3.7. Emergency services

Emergency medical services (EMS) are the responsibility of the provincial Department of Health (Sub-directorate: Emergency Medical Services). There are three permanent and four temporary EMS staff members in Bothaville, serving on two ambulances, transporting patients in need of emergency care between the clinics and the hospital in the sub-district and to the regional hospital in Welkom (Van Rensburg *et al.*, 1998b: 97-98).

3.8. Rehabilitation services

One occupational therapist serves the public sector in the whole of the Tshepo health district, which is insufficient. The reason for this insufficiency could be ascribed to a lack of funds.

3.9. Mental health/psychiatric services

The three PHC clinics in Bothaville serve as the first point of entrance for psychiatric patients, where they are scanned and receive treatment in less serious cases. If psychiatric patients need further care, they can be referred to a hospital or in the case of more serious mental disorders, they can be referred to a public psychiatric hospital in the province (Van Rensburg *et al.*, 1998b: 89).

3.10. Environmental health services

Bothaville has a full-time environmental health service. This service entails preventive measures with key functions to ensure access to proper environmental and occupational health services in the sub-district, to render environmental and occupational hygiene services, to promote a safe and healthy environment, and to promote the control of vector-borne diseases, disease vectors and communicable diseases (Van Rensburg *et al.*, 1998b: 93-94).

3.11. Oral services

There is one full-time dentist working for the public service in Bothaville. The oral health service is rendered through the provincial Sub-directorate: Oral Health, and it is based on the principles of PHC.

3.12. Pharmaceutical services

Depending on the guide of specialisation of the particular medicine, the dispensing of medicines in the public sector serving Bothaville is mainly done by professional nurses in the hospital and in the fixed and mobile clinics, as well as by medical officers in full-time and part-time employment of the provincial government. Professional nurses are allowed to dispense level one medicine, while medical officers dispense more specialised medicines. Medicines are kept at clinics, the hospital and the surgery of the medical officers (Van Rensburg *et al.*, 1998b: 91-92).

4. Private health services in the Bothaville sub-district

Bothaville is well served with numerous categories of private practitioners and traditional healers. Tables 6 and 7 depicts the categories per number.

Table 6: Range of private practitioners in Bothaville

Practitioner category	Number
Medical doctors	8
Dentists	1
Pharmacists	5
Optometrists	2/3 days per week
Optical dispensers	2
Physiotherapists	1
Occupational therapists	2

Source: Van Rensburg *et al.*, 1998b: 90-91

The five pharmacists in Bothaville work at two pharmacies. Three of the private practitioners serve public patients as district medical officers, besides running a joint private practice in town. Bothaville did not have a full-time optometrist, but were served by an optometrist from a nearby town who serves the sub-district two to three days per week. Bothaville is further served by two full time optical dispensers (Van Rensburg *et al.*, 1998b: 90-91).

Table 7 depicts traditional healers in the Bothaville sub-district per category and number.

Table 7: Range of traditional healers in the Bothaville sub-district

CATEGORY- TRADITIONAL HEALER	NUMBER
Herbalist	48
Diviner	35
Faith healer/prophet	30
Combination: Diviner/faith healer/herbalist	95
Traditional birth attendant	35
Total	**243**

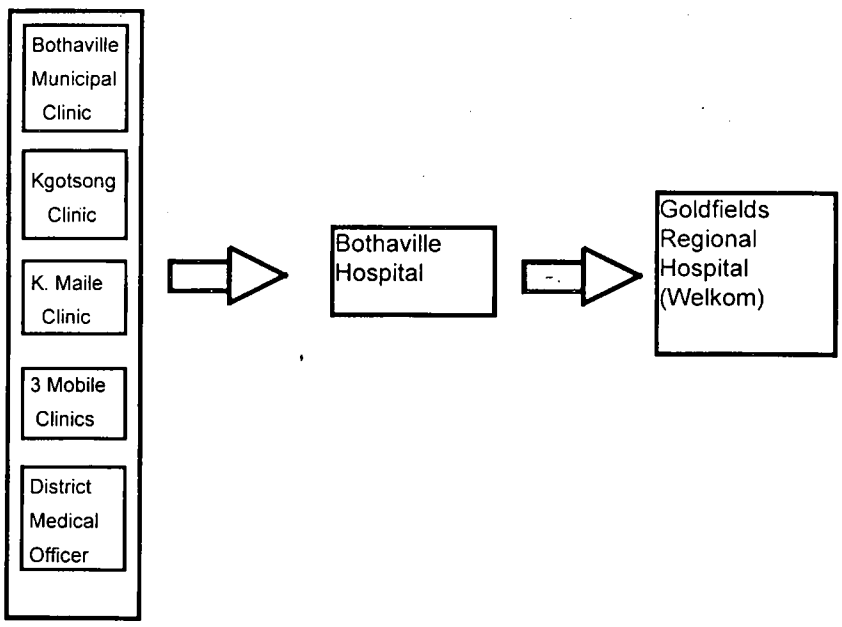
Source: Van Rensburg *et al.*, 1998b: 126.

There are a total of 243 known traditional healers in the Bothaville sub-district. The different types or categories of traditional healers are not easily and clearly distinguishable. Sangomas, for example, often also fulfil the function of herbalist and/or traditional midwife, while the combination herbalist-faith healer is also common. Although most of the traditional healers appeared to be 'generalists', there is also a strong indication that a significant proportion of them are 'specialists' in specific diseases or ailments (Van Rensburg *et al.*, 1998b: 126-127).

5. Main referral patterns

When the emphasis in South African health care shifted to PHC, first-line care at clinics became imperative in order to screen patients for treatment at an appropriate level of care. The referral pattern among public health services in Bothaville is best depicted in Figure 1.

Figure 1: Referral among public health services in Bothaville



Sources: Van Rensburg *et al.*, 1998b: 55; Free State Department of Health, 1998: 51

Bothaville, K. Maile and Kgotsong fixed clinics, as well as the mobile clinics serving the rural areas, refer patients that cannot be treated at clinic level, first to the district medical officers serving there, and if the patient needs to be hospitalised, they are referred to the Bothaville Hospital. Patients who cannot be treated at the Bothaville Hospital, are referred to the Goldfields Regional Hospital in Welkom.

6. Background of mobile clinic services: South Africa and Bothaville

6.1. Establishment of mobile clinic services in South Africa

Mobile clinic services in South Africa, as we know them today, were initially established as a result of the Health Act no. 63 of 1977 (Article 30). The concept of mobile health services originally entailed that certain preventive and promotive health services be rendered in rural communities. This acknowledged that rural communities had little or no access to health care in urban or peri-urban areas.

Due to financial constraints, health services at that time were rendered by means of any government vehicle available and medicine was transported in unspecified containers. Services initially provided by mobile services included family planning, Tuberculosis (TB) treatment, treatment of minor ailments (like colds, flu, headaches, fever etc.), home visits, geriatric care and health counselling. Travelling was done at intervals of 6 weeks to 3 months, depending on personnel availability, as well as the remoteness of areas served. Vehicles used for the mobile services were realised to be inadequate for health care purposes and were, from 1992 onward, gradually replaced mainly with better-equipped capsule clinics (Pods). With the current implementation of the PHC policy, the spectrum of services rendered by mobile clinics gradually expanded to the point where nearly all services rendered at fixed clinics are also delivered by mobile clinics. Even chronic prescriptions can be filled on a monthly basis in certain, more advanced regions of the DHS implementation (of which the Bothaville sub-district is one).

In the Free State, as in the other provinces, the Provincial Health Department is responsible for the rendering of mobile health services to the fourteen health districts. However, with the full implementation of the DHS, this responsibility will eventually pertain to the Local Authority (to be transformed) of each sub-district, or to a District Health Authority (to be established).

6.2. Establishment of mobile clinic services in the Bothaville district

The South African National Tuberculosis Association (SANTA) initiated a national TB project which commenced in the Bothaville area in February 1976. SANTA recruited a professional nurse, at that time employed at the Bothaville hospital, to provide TB-services in the area. The project was undertaken over a two-year period. SANTA felt that the need persisted and urged the government to take over further responsibility for the service. The government agreed and expanded the service to a more comprehensive health service rendered to rural communities. Firstly, immunisation was added to the services provided, followed by family planning, post-natal care, minor ailments and other PHC services, as we know it today. Orientation courses for the rendering of mobile health services were provided to better equip nursing staff for the new task.

6.3. Mobile clinic services in the Bothaville area: General profile of old and new services

At the time of this study the mobile clinic teams working on the farms, served 51 504 rural dwellers on 432 farms in the Bothaville rural area (Demographic Information Bureau, 1997). The mobile clinic teams travelled with three mobile units. Until recently, the mobiles travelled to all farms and farm schools (75 schools) and rendered PHC services. This situation made it possible to reach every farm and farm school only once every six weeks to three months. Therefore, it was decided to implement a new mobile health care system. Thirty-five mobile visiting points, geographically distributed over the magisterial district, were identified by the professional nurses rendering the service. In this way, it became possible to bring PHC once every month to the rural community in the area. This new system was implemented at the end of October 1997.

The following section provides a profile of mobile health services in the Bothaville magisterial district after the implementation of the mobile stopping point system. In some cases, comparisons between the previous system of mobile health and the mobile stopping point system are made. Matters dealt with are: staff component, number of routes travelled and their frequencies, operational status, services most often rendered and main conditions treated, patient loads, accessibility of PHC services, emergencies and main constraining factors.

6.3.1 Personnel component

Table 8: Staff component of mobile health services (October 1997 and May 1998)

System of mobile health	No. of Units	Staff rank	Number of posts	Population group	Total
Previous system	3	**Registered nurse**	3	**White**	3
(October 1997)		**Assistant nurse**	3	**Black**	3
		Staff nurse	1	**Black**	1
		Cleaner	1	**Black**	1
		Councillor	1	**Black**	1
Total no. of staff					9
MSP*-system	4	**Registered nurse**	4	**White**	4
(May 1998)		**Assistant nurse**	3	**Black**	3
		Staff nurse	1	**Black**	1
		Cleaner	1	**Black**	1
		Councillor	2	**Black**	2

* MSP stands for Mobile Stopping Point, also referred to Mobile Visiting Point in report

6.3.2. Headcount visits

Table 9: Headcount visits (per age group) to mobile clinics in Bothaville, 1997

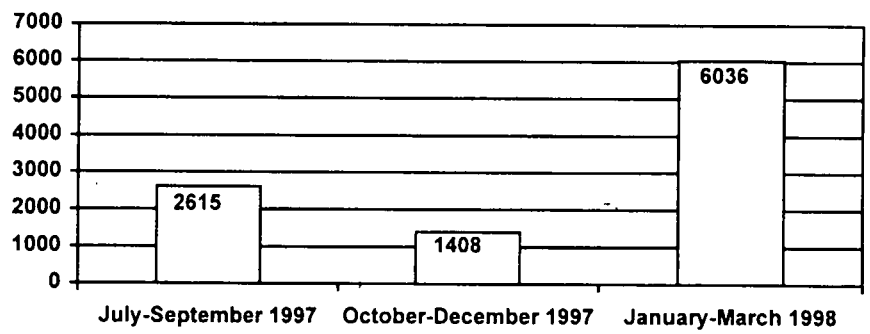
Age in years	Number of visits (n)	Percentage of consultations (%)
<1	584	6.3
1 – 4	1 642	17.8
5 – 10	984	10.7
11 – 14	296	3.2
15 – 19	1 011	10.9
20 – 34	2 307	25.0
35 – 44	937	10.2
45 – 49	331	3.6
50 – 59	631	6.8
60 >	489	5.3
Unknown	16	0.2
Total	**9 228**	**100**

Source: Ticksheet data, 1/1997 - 12/1997

A total number of 9 228 patients made use of mobile health services in 1997. The majority of clients (25%) were in the 20 to 34 year age group, followed by the 1 to 4 year age group (17.79%) and the 15 to 19 year age group (10.95%).

The decline in the number of clients seen in the three month period October to December 1997 is indicated in Figure 2. This could be ascribed to general problems relating to the implementation of the mobile stopping point system, such as difficulties in transportation and insufficient dissemination of information.

Figure 2: Headcount visits to mobile clinics in Bothaville per three-month interval



Sources: Ticksheet data, July – December 1997; Daily register data from Bothaville PHC Clinic, January – March 1998

As can be seen in the above figure, before the implementation of the new mobile clinic system, 2 615 people used the mobile services in the July to September 1997 period. With the implementation of the new system, this figure dropped meaningfully, which can be ascribed to general problems relating to the implementation of the new visiting point system. Difficulties

included patient transportation to the visiting points and insufficient dissemination of information among users of mobile health care. In the January to March 1998 period, the headcount figure increased tremendously, which could be an indication of the users having adapted well to the new system after a period of growing pains. This should be kept in mind when reading the findings of the survey conducted among the users of the system.

6.3.3. Important equipment, infrastructure, services rendered and essential drug supply

A set of important indicators identified by a research team (Buthelezi *et al.*, 1997: 5-13) by which to measure the availability of the most essential equipment, infrastructure and services on the mobile units operating in Bothaville magisterial district is used in this section. These indicators are contained in the discussion that follows and are bolded in the text.

The absence of a **means of communication** in mobile units, could prove detrimental to effective health care delivery to people living in rural areas, since problems such as emergencies and breakdowns could prove difficult to address. At the time of the study, the mobile units had no means of communication available on board. Take note, however, that shortly after the study was conducted in April 1998, all mobile units in the Bothaville magisterial district were supplied with two-way radios.

Water is an important element in delivering health care and it could be regarded a serious problem that only one of the mobile units had a water supply in her mobile. Batteries were the **energy source** used by the mobile units. However, personnel serving on the mobile units indicated that this form of power was unreliable at times.

All mobile units were provided with **infant weighing scales** that were in a good working condition. As to **cooling mechanisms** for immunisation vaccines, cooler bags with ice packs were used and were indicated by the personnel to be a satisfactory cooling method.

The mobile unit operators indicated that they would use the mobile units for transportation in the case of **medical emergencies**. If a unit was at the furthest point on its route, **assistance** could be **obtained within less than one hour** if they transported patients themselves. The health care providers furthermore indicated that treatment for anaphylactic shock, allergic reactions as well as normal deliveries were the **most complicated medical emergencies** they could **address** in their units, which is standard in the case of rural PHC.

Regarding the **management of sexually transmitted diseases (STDs)**, the mobile unit personnel reported that blood specimens can be taken to test for syphilis and all antenatal patients are tested for syphilis at their booking visit. **Test results** are received **within one week** and treatment starts with the next mobile clinic visit.

Regarding **testing for TB**, the personnel operating Bothaville's mobile units indicated that **sputum test results** are **received within two to three days** after sending it away, which is the recommended guideline set by the Tuberculosis Control Programme. To ensure that treatment is started as soon as possible, the farmer/spouse is notified upon the reception of a direct positive TB-result. He/she is then provided with the necessary medication and information. The condition of the patient is then reassessed with the following mobile unit visit.

Regarding the **availability of selected essential drugs**, the mobile units were well stocked with antibiotic medication, immunisation vaccines and TB medication. Medication for the

treatment of asthma, hypertension, diabetes and psychiatric conditions were not available at the time of the study. None of the mobile clinics had an **oxygen** supply available.

6.3.4. Routes, points and duration of trips

Table 10 provides information on the number of routes travelled by the units, the number of points and farm schools visited, and the frequency and duration of these trips prior and after the implementation of the mobile stopping point system.

Table 10: Routes, points, and duration of trips by mobile units under the previous and new systems of mobile health (October 1997, January 1998)

Mobile unit	No. of routes		No. of points visited on route		No. of farm schools visited		Frequency of trips (in weeks)		Duration of trips (in hours) per day	
	PS*	NS**	PS	NS	PS	NS	PS	NS	PS	NS
Unit 1	34	7	201	12	22	10	12	4	6.5	6
Unit 2	16	6	143	15	28	11	12	4	6	5.8
Unit 3	32	7	179	13	30	9	12	4	6	6
Total	**82**	**20**	**523**	**40**	**80**	**30**	**36**	**12**	**18.5**	**17.5**
Average	**27.3**	**6.6**	**174.3**	**13.3**	**26.6**	**10**	**12**	**3**	**6.16**	**5.8**

*Previous system of mobile health
**New system of mobile health

It is clear from the data in the above table that the number of routes travelled and the number of visiting points on farms and farm schools visited on every route, was reduced tremendously by the implementation of the new mobile system, however, the difference this made to the duration of the day trips were insignificant. The mobiles visit every point now four weekly and not twelve weekly as before.

6.3.5. Operational status

The health care personnel stated that meetings, annual/sick leave, training courses and weather conditions like rain have a negative influence on the operational status of mobile health services. It was noted that back-up personnel could prove a valuable asset when meetings or training sessions are to be attended. Unfortunately, no statistics are available on the operational status of the mobile clinics under the previous and new systems of mobile health. It has been stated that weather conditions like rain and extreme heat as well as road conditions have less influence on the new system of mobile health, since only larger roads are used for travelling now.

6.3.6. Population groups

With regard to the population served by mobile clinics, it should be kept in mind that it is almost exclusively the rural-farm population which utilise this service. Table 11 gives an indication of the population groups utilising mobile health care in the Bothaville magisterial district. It is evident

that Africans form the predominant population group (98.86%) of mobile health services' clientele.

Table 11: Population groups using mobile health care, 1997

Population group	Number of clients	Proportion (%)
African	9 123	98.86
White	32	0.34
Coloured	1	0.01
Unknown	72	0.78
Total	9 228	100

Source: Ticksheet data, 1/1997 - 12/1997

7. Main conditions treated and services most often rendered

The mobile unit operators indicated that the conditions most often treated were STDs, respiratory infections, headaches and worms. As to the services most often rendered, these were indicated to be minor ailments, immunisations, family planning, chronic medications and TB.

8. Mobile clinic referrals

Rural dwellers using mobile clinics are, when necessary, mainly referred to a district surgeon in Bothaville. The main obstacle in the referral system was indicated to be patient transportation. Other impediments identified were: uncertainties surrounding some health conditions, poor feedback from other health facilities on a referred patient's treatment, and the fact that some patients do not seek treatment further than mobile health services after being referred.

9. Main constraining factors in mobile health service delivery

The main factors preventing clients from utilising mobile health services were indicated to be transportation difficulties, long working hours during harvest seasons and weather conditions like rain. From the side of service delivery, the main constraining factors under the previous system of mobile health were stated to be insufficient personnel and a poor communication infrastructure. Both these hampering factors have been addressed in April 1998, when more personnel were appointed and as has been mentioned, the units were supplied with two-way radios. In addition, a lack of availability of chronic medication and authority to prescribe it (by the professional nurses) were noted to be constraining factors.

PART 3: RESULTS OF THE EMPIRICAL STUDY

Chapter 4

RESULTS OF THE SURVEY CONDUCTED AMONG USERS AND POTENTIAL USERS OF MOBILE CLINIC SERVICES IN THE BOTHAVILLE MAGISTERIAL DISTRICT

1. Introduction

A total of 30 farms were sampled according to whether the farm served as a mobile visiting point or not and geographical strata. The latter included farms less than 5 kilometres from a farm serving as a visiting point, farms between six and ten kilometres from a point and some more than 10 kilometres away from a point. No farms within a radius of 5 kilometres from Bothaville or Kgotsong were sampled, because it was assumed that most of these rural dwellers utilised the clinics in town as they were nearer.

Respondents were also selected to be representative of the population in the rural district in terms of age and gender. No respondents under the age of 20 years were included in the survey, because it was assumed that respondents who were too young might jeopardise the validity of the data.

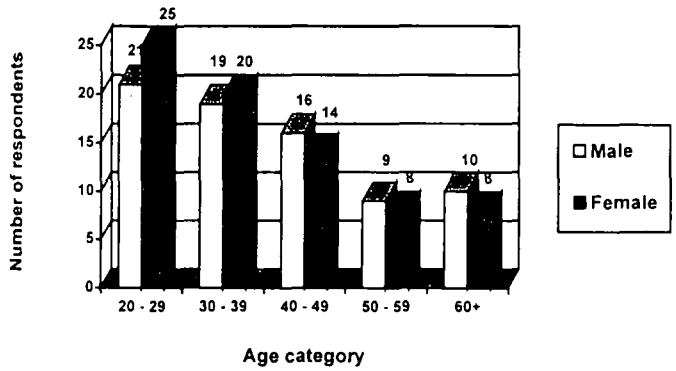
The chapter that follows delineates and deals with the results of the survey that was conducted among users or potential users of the mobile clinic services in the Bothaville magisterial district. It includes biographic, demographic and socio-economic related information, as well as mortality and morbidity profiles and trends, perceptions and opinions of respondents regarding their health seeking behaviour, the new mobile system and the health care they receive, as well as the health care that they do not receive at mobile clinics.

2. Baseline data: Biographic, demographic and socio-economic information

2.1. Age and gender distribution

A total of 150 interviews were conducted on 30 farms in the Bothaville magisterial district. Equal numbers of males (n=75) and females (n=75) participated in the interviews. Participants were between the ages of 20 and 98 years. Figure 3 provides a breakdown of the age groups according to gender.

Figure 3: Age distribution according to gender



2.2. Marital status and geographic area where raised

More than two thirds (70.7%) of the respondents were legally married or living together as husband and wife without being legally married.

The vast majority of respondents (97.3%) indicated that they grew up in a rural area while only 2.7% of respondents grew up in a town. None of the respondents grew up in a city.

2.3. Employment status, salaries and additional benefits

A majority of 61.3% of respondents indicated that they had worked for payment during the last twelve months. Of these respondents, 87% were employed in a permanent position and 13% occupied a part-time position. Table 12 depicts the working hours of these respondents.

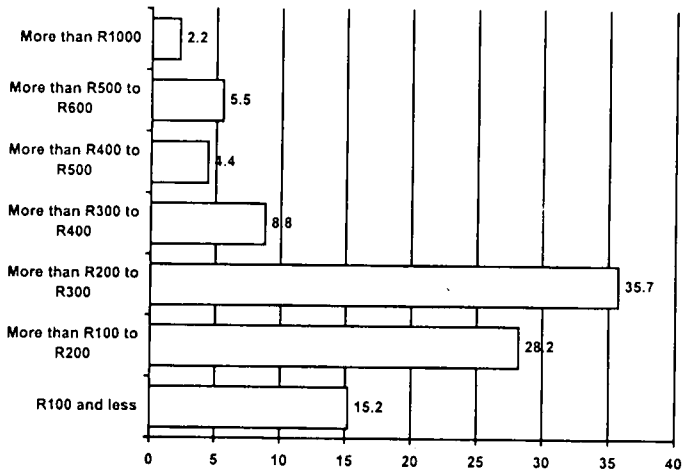
Table 12: Working hours of respondents who were employed during the past twelve months

Hours	Number of respondents (n)	Percentage of respondents (%)
Work day (7 am - 7 pm)	15	16.3
Day work (±8 am - 5 pm)	61	66.3
Half day (±8 am - 1 pm)	6	6.5
Less than 4 hours per day	8	8.7
Less than 2 hours per day	2	2.2
Total	**92**	**100.0**

Nearly two thirds of employed participants (66.3%; n=61), indicated that they did 'day work', which meant that they worked from approximately eight o'clock in the morning until around five o'clock in the afternoon. A further 16.3% (n=15) worked a 'work day', that is between seven in the morning and seven in the evening. Less than a fifth (17.4%; n=16) of employed respondents worked 'half a day' or less.

The average income of employed rural dwellers was R 296.63 per month. This is very low, even when taken into consideration that 17.4% of employed rural dwellers were working only half a day or less. Salaries ranged between as little as R20.00 per month up to R4 100.00 per month. Figure 4 provides an indication of the monthly salaries earned by employed participants.

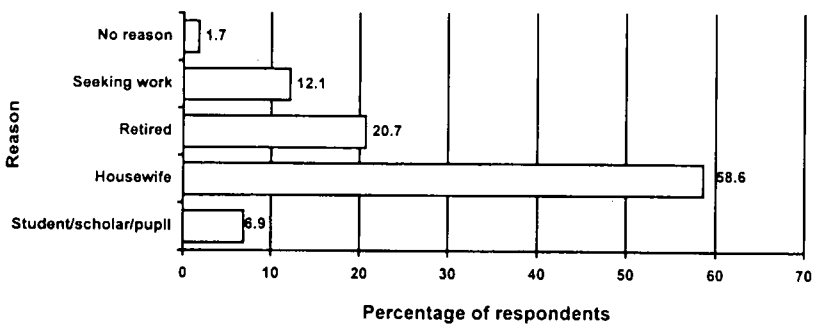
Figure 4: Monthly income of employed rural dwellers



Nearly 80% (79.1%) of employed rural dwellers in the Bothaville area earned R300 or less per month, which was well below the minimum wage in South Africa. A mere 2.2% earned more than R1000 per month. When the fact that 82.6% of these workers worked eight hours or more every weekday is taken into account, it is evident that these employed rural dwellers were grievously underpaid.

The other (more than a) third of the participants (38.7%) who had not been employed during the past twelve months, provided reasons for their unemployed state, as shown in Figure 5.

Figure 5: Reasons for unemployment



Of the 58 respondents who had not been employed, more than half (58.6%; n=34) indicated the reason for this to be that they were housewives who had to look after households and families. Only 6.9% of the respondents indicated that they were unemployed because they were still at school or studying. This low percentage could be ascribed to the fact that no respondents under the age of 20 were included in the survey. Only 12.1% (n=7) indicated that they were seeking work.

To further explore whether participants and their households had enough to make a living, respondents were asked whether they received any benefits in kind from their employer. It turned out that a wide variety of benefits were received from farmers on whose farm respondents were residing. Because of the fact that benefits received varied substantially throughout the area, it

was deemed necessary to compile a detailed table comprising the different types and amounts of benefits received.

Table 13: Type of benefits received from farmers

Type of benefit	Number of responses (n)	Percentage of responses (%)
80 kg maize meal	89	56.4
60 kg maize meal	12	7.6
50 kg maize meal	8	5.1
40 kg maize meal	3	1.9
25kg maize meal	2	1.3
2 bags maize	1	0.6
Maize meal	6	3.8
Half to one and a half litres of milk per day	24	15.2
Two litres of milk every day	5	3.2
Three litres of milk every day	1	0.6
Five litres of milk every day	1	0.6
Meat and milk daily	3	1.9
Vegetables occasionally	2	1.3
Meat vegetables and milk occasionally	1	0.6
All meals every day	1	0.6
Total	**158***	**100.0****

* Note that this is the number of responses and not the number of respondents
**Note that this is the percentage of responses and not the percentage of respondents

More than three quarters (76%) of benefits received consisted of maize products, of which 56.4% received 80 kilograms of maize meal per month. A further 21.5% of the benefits received consisted of a daily supply of milk.

These benefits should be kept in mind when the low average salary of the population is considered. However, even when these benefits are taken into account, it is evident that these farm workers still received scanty rewards in return for their labour.

2.4. General living conditions of sampled households

2.4.1. Household size and composition

There were a total of 782 people in the 150 African households from which the direct respondents (those who were interviewed) were sampled, this left 632 indirect respondents (persons living in the households of direct respondents themselves). Information pertaining to the indirect respondents will be referred to in some parts of this report (the reader will be able to identify these parts from the numbers in the tables as well as in the questionnaire from the questions posed to the direct respondents). Of all the members in the households included in this survey, 393 were male and 389 female (direct and indirect respondents). The mean size of these 150 households was more than five people (n=5.2) per household.

The range of household sizes varied between one and ten people per household. Table 14 depicts the household sizes.

Table 14: Household size

Household size	Number (n)	Percentage (%)
1 person	5	3.3
2 people	18	12.0
3 people	13	8.8
4 people	23	15.3
5 people	24	16.0
6 people	17	11.3
7 people	20	13.3
8 people	13	8.7
9 people	8	5.3
10 people	6	4.0
Missing	3	2.0
Total	**150**	**100.0**

More than three quarters (76.7%; n=115) of the households included in the survey comprised of between two and seven people. Eighteen percent of households (n=27) were composed of more than seven people, while 3.3% of households (n=5) consisted of one person only.

Ages of household members ranged from less than a year to 98 years old. The mean age of the household members was 26.3 years, which renders this study population quite a young one. The age profile of household members is shown in Table 15.

Table 15: Age composition of households

Age in years	Number (n)	Percentage (%)
<1 – 9	141	18.0
10 –19	212	27.1
20 – 29	147	18.8
30 – 39	94	12.0
40 – 49	74	9.5
50 – 59	51	6.5
60 – 69	28	3.6
80 – 89	6	0.8
>90	2	0.2
Uncertain	13	1.7
Total	**782**	**100.0**

Nearly two thirds of the household members (63.9%; n=500) were younger than 30 years of age. A mere 6.4% (n=50) were older than 60 years. The largest proportion of the sample were in the age category 10-19 years, with more than a quarter (27.1%; n=212) of the household members falling in this category.

2.4.2. General household employment status

The employment status for the household population is depicted in Table 16.

Table 16:Employment status of the household population

Employment status	Number of household members (n)	Percentage of household members (%)
Too young to work	353	45.1
Employed	235	30.1
Unemployed	148	18.9
Retired	23	2.9
Student (tertiary education)	2	0.3
Disability pension	1	0.1
Missing	20	2.6
Total	782	100.0

Nearly half of the household members (45.1%; n=353) were too young to work (<1–19 years old), almost a third (30.1%; n=235) were employed, less than a fifth (18.9%; n=148) were unemployed, and 2.9% (n=23) were retired. A mere two household members (0.3%) were busy with tertiary education, and one respondent (0.1%) received a disability grant. The employment status of 20 respondents (2.6%) was unknown. This somewhat skews the data with regard to the total picture presented in this table.

2.4.3. Living environment

A range of observations were made by the interviewers concerning the living environment of the participants in the survey. This included counting the number of rooms in dwellings where participants resided. Rooms, in this context, are all the rooms in each house and not only the rooms used to sleep in. Table 17 shows the number of rooms per house in the survey.

Table 17: Number of rooms in each house

Number of rooms per house	Number of respondents (n)	Percentage of respondents (%)
One room	3	2.0
Two rooms	14	9.3
Three rooms	13	8.7
Four rooms	75	50.0
Five rooms	17	11.3
Six rooms	18	12.0
Seven rooms	4	2.7
Eight rooms	5	3.3
Nine rooms	1	0.7
Total	150	100.0

Seventy percent of the respondents (n=105) lived in houses with four or less rooms. Half (50%; n=75) of the total number of houses consisted of four rooms.

Nearly two thirds (61.3%; n=92) of the respondents were using two of the rooms in their houses to sleep in, while 18.7% (n=28) used only one room, 16% (n=24) used three rooms and 4% (n=6) used four rooms for the purpose of sleeping in.

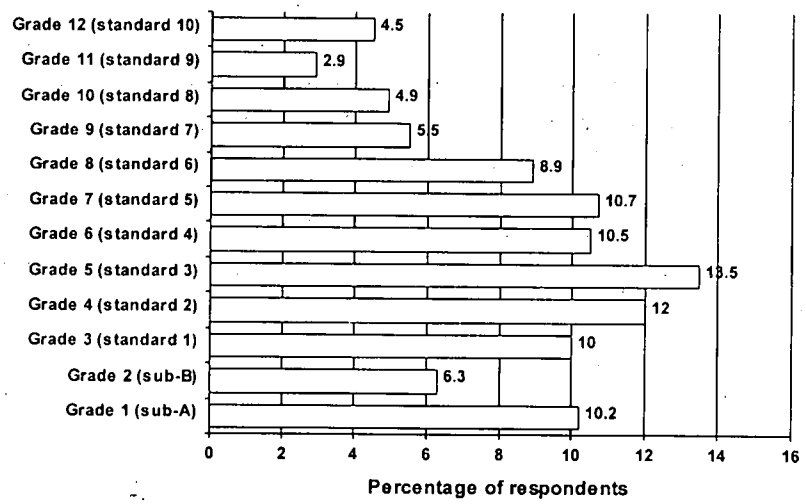
The majority of the houses (67.4%; n=101) had mud plastered floors and the rest (34.7%; n=49), cement floors. Walls consisted mostly of unplastered bricks (58%; n=87). Nearly a third of the houses (30%; n=45) had mud plastered walls, 7.3% (n=11) had cement plastered walls. Only 4.7% (n=7) of the houses could be classified as shacks, because the walls consisted of corrugated iron sheets. The vast majority of dwellings' roofs (97.3%; n=146) consisted of corrugated iron sheets, while 2.7% (n=4) of the houses had asbestos roofs.

More than two thirds of the respondents' yards (66.7%; n=100) were neat and tidy while 30.7% (n=46) of the yards were littered. Four yards were not observed. Only 7.3% (n=11) of the yards contained a dustbin.

2.4.4. Literacy and level of education

The level of education for the household population is depicted in Figure 6.

Figure 6: Level of education in households

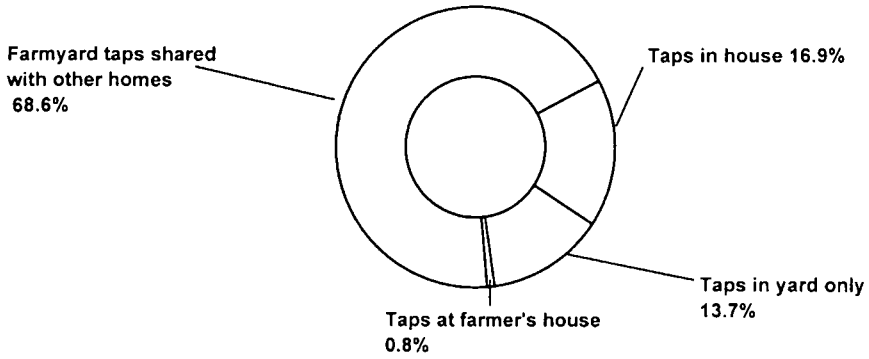


A mere 4.5% (n=28) of household members had completed their school education (i.e. grade 12), while 12.3% (76) had completed grade 10 (standard 8) and higher. More than a third (37.4%; n=231) of the population had completed primary school (grade 7 or standard 5). The 165 household members who were not accounted for in the table were either not of a school going age yet, the respondent was uncertain of the educational level of someone in the household, or the household member never attended school. No distinction could be made among these three categories, as provision was not made for this in the questionnaire.

2.4.5. Water sources

The majority (83.8%; n=124) of the sampled households in the Bothaville rural area had access to piped water. Figure 7 depicts the source of piped water that the respondents had access to.

Figure 7: Source of piped water



More than two thirds (68.6%; n=85) of the households which had access to piped water shared a tap with other homes. Only 16.9% of households had a tap in the house, while 13.7% of respondents indicated having a tap in the yard. One respondent indicated the only source of piped water that could be accessed, was a tap in the farmer's yard. Twenty six of the 150 households indicated that they got water from sources other than a tap. These sources included a:

- windmill (7.4%; n=11);
- hand pump (4.0%; n=6);
- dam or tank (2.7%; n=4);
- bore hole (2.7%; n=4).

One respondent did not answer this question.

Of those households that did not have access to piped water, only one treated the water (with "Jik") before drinking it.

2.4.6. Sanitary arrangements

The sanitary system of rural Bothaville consisted mainly of pit toilets. Table 18 depicts the sanitary system per household.

Table 18: Types of toilets used by households

Type of toilet used	Number of households (n)	Percentage of households (%)
Pit toilet	99	66.0
No toilet	48	32.0
Flush toilet	3	2.0
Total	**150**	**100.0**

Nearly a third (32%; n=48) of respondents indicated that their households did not have access to any sanitary facilities at all and had to use the bushes surrounding their village for this purpose. Two thirds of the households (66%; n=99) had access to a pit toilet, while a mere 2% (n=3) of the households had access to a flush toilet.

2.4.7. Hygiene

A large majority of households (78.7%; n=118) did not have a separate bath or basin for the purpose of personal hygiene in the house. Only 21.3% (n=32) indicated having such a facility.

The refuse of most households (83.3%; n=125) was disposed of on a demarcated dump on the farm. Twenty of the households (13.3%) burnt their refuse, while 2% (n=3) indicated that they disposed of their refuse somewhere around their yards, one (0.7%) respondent indicated that the refuse is disposed of anywhere around the farm and another (0.7%) indicated that they disposed of their refuse in a pit toilet.

2.4.8. Food and nutrition

An assessment was made to determine whether households had access to self-grown or self-kept food sources. Table 19 shows types of sources kept or grown, or shared in, by some of the households.

Table 19: Self-kept or grown food sources

Food source	Number of households (n) out of 150 each*	Percentage of households (%) out of 100% each*
Poultry	107	71.3
Livestock	62	41.3
Fruit trees	37	24.7
Vegetable garden	19	12.7
Maize	3	2.0
Grain	1	0.7

*Some households have more than one food source

Nearly three quarters of the households kept poultry (n=107), while quite a number (n=62) of the households kept livestock as well. These households seemed reluctant to plant food crops since only 37 of them had or shared in fruit trees, 19 had or shared in vegetable gardens, while three planted maize and only one household had or shared in grain.

When asked about the general contents of meals eaten every day, it was determined without a doubt that the staple food of the Bothaville rural community was maize porridge (a mean of 146.3 of the 150 households had this as staple food to all their meals).

The main component of breakfasts (94.7%; n=143) was porridge. For eight of the households (5.3%) bread was the main component of breakfast, one household had oats and another "vetkoek" as main components. Additional breakfast components were milk (63.1%; n=94), vegetables (12.1%; n=18), meat (3.4%; n=5), eggs (2.0%; n=3), bread (4.0%; n=6) and soup (0.7%; n=1).

The main component of lunch was also porridge, with 98% (n=147) having this. Three of the households (2%) had bread as a main food component for lunch. Additional lunch components were milk (48%; n=72), vegetables (52.7%; n=79), meat (28%; n=42) and eggs (6.7%; n=10).

The main component of supper was also porridge (99.3%; n=149). One household (0.7%) had bread as main supper component. Additional supper components included milk (40%; n=60), vegetables (50.6%; n=76), meat (46%; n=69), eggs (5.3%; n=7), rice (2%; n=3) and "stamp" (1.3%; n=2).

It is likely that malnutrition is a problem in these households, as maize porridge has a low nutritional value and it is not complimented enough by the other food groups.

3. Morbidity and mortality profiles, births, deaths and age of the study population and their households

3.1. Morbidity

3.1.1. Chronic diseases

From the 782 household members covered in this survey, 91 (11.6%) suffered from a chronic disease. Whether all the diseases that were indicated to be chronic diseases, in fact are, is debatable.

Table 20 depicts the number and percentage of chronically ill people in the 150 households.

Table 20: Prevalence of chronic diseases in households

Type of chronic disease	Number of people suffering (n)*	Percentage of the household population (%)	Percentage of total chronic cases (%)
High blood pressure	35	4.5	38.4
Chronic heart disease	15	1.9	16.5
Asthma	9	1.2	9.9
Chronic geriatric condition	8	1.0	8.8
Tuberculosis (TB)	8	1.0	8.8
Stroke and permanent effect	3	0.4	3.3
Sugar diabetes	2	0.3	2.2
Malnutrition	2	0.3	2.2
Epilepsy	2	0.3	2.2
Serious eye problems	2	0.3	2.2
Chronic tonsil problems	1	0.1	1.1
Small pain/small child (letswejane)**	1	0.1	1.1
Chronic swelling of body	1	0.1	1.1
Chronic kidney problems	1	0.1	1.1
Waist nerve problems	1	0.1	1.1
Total	91	11.7	100.0

*There was a total of 782 household members in the 150 households
**This disease has been described as a stabbing pain under the rib cage of the baby suffering from it.

High blood pressure: Thirty five (4.5%) of the 782 household members suffered from high blood pressure. Of these, nine were treated at a fixed clinic, nine by a doctor, eight at a mobile clinic, seven at a hospital and one by a farmer's wife. One of the sufferers had not received any treatment at the time of the survey.

Of the nine patients treated at a fixed clinic, six indicated that their conditions were improving, two indicated that there was no improvement and one indicated that it was deteriorating. The majority of patients treated by the doctor indicated they were improving, two were deteriorating

and one's condition was fluctuating. All the mobile clinic patients (n=8) were improving. Hospital patients were all improving, but one, who indicated deteriorating. The patient treated by the farmer's wife was also improving, while the person who did not receive treatment at the moment, was uncertain.

Chronic heart disease: Fifteen (1.9%) of the 782 household members were reportedly suffering from chronic heart disease. Seven were treated by a doctor, six of them indicated improvement and one, deterioration. The mobile clinic treated five patients, all of whom indicated that their condition were improving. The Bothaville clinic treated two people; one reported deterioration and one improvement - while one patient indicated not receiving any treatment at the time and was uncertain about the state of his/her condition.

Asthma: Nine people suffered from asthma. Of the three who were treated by a doctor, two indicated that their conditions were improving and one indicated that it was deteriorating. The mobile clinic treated a further three, two of whom reported improvement and one, deterioration. The fixed clinic treated two patients, both of whom reported improvement and the hospital treated a patient who reported that the condition was improving.

Chronic geriatric condition: Eight people suffered from this chronic condition. Three were treated by the fixed clinic (one who was reported to improve, one deteriorated and the other saw no improvement), three were receiving no treatment (two indicated their conditions were improving, even though they received no treatment at that stage and one was uncertain), one was treated by a doctor (the condition was improving) and the other by the mobile clinic (the condition was improving).

Tuberculosis (TB): Eight people in the population under study suffered from TB. One person was treated at the Virginia hospital, and reported an improvement in the condition. Another patient was treated at a TB hospital, and improvement was also reported in this case. Two further patients were treated at a hospital, although they did not indicate which hospital. One of them indicated an improved condition, and the other deterioration. Two TB sufferers indicated not receiving any treatment. One of them was uncertain about the state of the condition, the other indicated that the condition was deteriorating. A further patient was treated at a fixed clinic and another, by the mobile clinic. Both of them indicated that their conditions were improving.

Four of the TB sufferers completed their treatment and one was still receiving treatment at the time of the survey. Three of the respondents did not answer this question.

Stroke and permanent effect: Three people suffered a stroke and were permanently affected by it. One of them was treated at a fixed clinic, one at a hospital and one by a doctor. Those who were treated at a hospital and by a doctor, reported their conditions were improving. The patient who was treated at a fixed clinic, indicated that the condition was fluctuating.

Sugar diabetes: Two people suffered from sugar diabetes. One was treated at a fixed clinic, and the other at a hospital. Both reported their conditions were improving.

Malnutrition: There were two cases of malnutrition, one of which were treated by a fixed clinic and the other, by a doctor. The patient treated at the clinic, reported the condition was deteriorating and the other patient indicated that it was improving.

Epilepsy: Both epileptic cases were treated by a doctor and were improving.

Serious eye problems: Two people had serious eye problems. They were both treated by a doctor. One's condition was improving and the other, deteriorating.

One person each suffered from the following five chronic diseases:

- Chronic tonsil problems were treated at the fixed clinic in Bothaville and the patient's condition was improving.
- "Stabbing pain under the baby's rib cage" was treated by a doctor and the baby was improving.
- Chronic swelling of the body was treated at a fixed clinic in Wesselsbron and the patient was improving.
- Kidney problems were treated by a doctor and the patient's condition was deteriorating.
- Waist nerve problems were also treated by a doctor and the patient was improving.

Although the last six mentioned conditions were categorised under chronic diseases, they may not be classified by clinical medical personnel as such. It was, however, the respondents who, after the interviewer explained what a chronic condition was, gave these responses. They therefore perceived the conditions to be chronic.

3.1.2. Prevalent ailments

Respondents were asked what the most prevalent and serious ailments in their households were. The responses of those who answered the question, are depicted in Table 21.

Table 21: Most prevalent or serious ailments

Type of ailment	Percentage of responses (%)*
Flu in winter	28.5
Headache	23.0
Coughing	19.0
No problems	13.5
Eye problems	4.0
Kidney problems	1.6
Stress	1.6
Sugar diabetes	0.8
Circulatory problems	0.8
High blood pressure	0.8
Crippled	0.8
Skin rashes	0.8
Gall bladder problems	0.8
Back problems	0.8
Constipation	0.8
Stomach problems	0.8
Diarrhoea	0.8
Epilepsy	0.8
Total	**100.0**

* Percentage of responses and not respondents

Flu in winter was reported to be the most prevalent ailment experienced (28.5% of households). Nearly a quarter of responses (23%) were headaches, and 19%, coughing. A total of 13.5% of the responses suggested no health problems in the households.

3.1.3. Disability

There were thirteen cases of physical disability in the 150 (with 782 members) selected households. If the data is generalised, it means that 1.7% of the Bothaville rural population was physically disabled. This is lower than the percentage for the Free State (2.3%) and higher than the national percentage (1.4%) (*South African Health Review*, 1997: 243).

Table 22 depicts the nature of the physical disabilities, ages of the disabled persons, facility where the person is cared for, specialised support received by the disabled person, financial support received and the source of this financial support.

Table 22: Physical disability profile of households

Nature of physical disability	Gender	Age	Where person is cared for	Specialised medical support	Financial support (grant)	Source of grant
1. crippled	male	17	home	hospital	yes	welfare
2. crippled	male	66	home	hospital	yes	welfare
3. crippled	male	14	home	none	none	nowhere
4. crippled	female	16	home	none	none	nowhere
5. crippled	female	64	home	none	none	nowhere
6. crippled	male	32	home	hospital	none	nowhere
7. blind	male	59	home	hospital	yes	welfare
8. blind	male	42	home	none	none	nowhere
9. blind	male	19	home	none	none	nowhere
10. blind	male	17	home	none	none	nowhere
11. blind	female	55	home	hospital	none	nowhere
12. deaf	male	15	home	none	none	nowhere
13. missing finger	female	5	home	none	none	nowhere

Nine of the 13 disabled persons were male and only four, female. The ages of the disabled persons ranged from five years to 66 years. None of the disabled persons were institutionalised; all were cared for at home. Only five of the 13 disabled people (two blind people and three crippled people) received specialised medical support at a hospital. Only three (one blind person and two crippled people) received financial support (a grant) from the Department of Social Welfare. The thirteenth disabled person had a missing finger and whether this could be classified as a disability, is debatable. It is included in this table because it was perceived to be a disability by the respondent.

There were six cases of mental disability among the 782 household members. Therefore, 0.8% of the household population were mentally disabled. This is higher than the percentage for the Free State and the national percentage, which are both 0.4% (*South African Health Review*, 1997: 243).

The mental disability profile for the household population, is depicted in Table 23.

Table 23: Mental disability profile of households

Nature of mental disability	Gender	Age	Where person is cared for	Specialised medical support	Financial support (grant)	Source of grant
Retarded	male	51	home	none	none	nowhere
Retarded	female	38	home	none	none	nowhere
Retarded	female	25	home	none	none	nowhere
Retarded	male	54	home	hospital	none	nowhere
Illness called traditional faith healer'	female	28	home	hospital	none	nowhere
Senile	male	54	home	home	none	nowhere

There were four cases of mental retardation, one of which was allegedly caused by electrocution by the police and the other three cases were retarded from birth. Two of the retarded people were male (one of whom was electrocuted) and the other two, female. One 54 year old male suffered from senility. A female reportedly suffered from an illness called "traditional faith healer". Whether this could be classified as a mental disability is questionable, but the respondent indicated the condition to alter the mental well being of the person and respond that she received specialised medical care at the hospital for this condition.

The ages of these mentally disabled people, ranged from 25 years to 54 years. None of them were institutionalised, instead they were cared for at home, two of them received specialised care from the hospital (one retarded person and the female suffering from the "traditional faith healer" condition). None of these people received a grant from the Department of Social Welfare.

3.1.4. Mother and child health

Only the female participants took part in this section of the survey, and they were asked only about their own children. Therefore the study population for this question, was 59 females in the generally accepted reproductive age group of 18 to 49 years.

(i) Births

During the previous two years, 15 babies were born. All of these were live births without any serious complications. All the births were normal vaginal deliveries, except one, which was a caesarean section. The ages of the mothers in this study ranged from 18 to 39 years, the mean age was 26.6 years. Five of the births took place at the respondents' homes, while ten took place in a hospital. The birth attendants who assisted with the deliveries at home, were the respondents' mothers (n=2), a mother-in-law (n=1), a neighbour (n=1) and a friend (n=1). The hospital births were all assisted by a professional nurse (n=10). Only four of the mothers did not breastfeed their babies after birth, and none of the mothers received any additional baby formula or food from any health care facility. Four of the mothers have not used any family planning method since giving birth to their babies, while ten of them started using injectable contraceptives after giving birth. One respondent started using an oral contraceptive after giving birth. The number of ante-natal and post-natal visits to clinics, are depicted in Table 24.

Table 24: Number of ante-natal and post-natal visits to a clinic

Number of ante-natal visits (n)	Number of mothers (n)	Percentage of mothers (%)	Number of post-natal visits (n)	Number of mothers (n)	Percentage of mothers (%)
6	3	20.0	**6**	2	13.3
5	2	13.3	**5**	2	13.3
4	2	13.3	**4**	1	6.8
3	5	33.3	**3**	2	13.3
2	1	6.8	**2**	2	13.3
1	2	13.3	**1**	1	6.8
0	-	-	**0**	5	33.3
Total	**15**	**100.0**	**Total**	**15**	**100.1**

A third of the mothers went to a clinic three times for ante-natal care; a third of the mothers did not take their babies to a clinic at all for post-natal care. The mean number of times mothers went to a clinic for ante-natal care was 3.5 times, while the mean number of post-natal care visits, was 2.5 times.

The majority of these mothers' (n=9) umbilical cords were treated with "spirits" after giving birth, while one of each of the respondents' umbilical cords was treated with clinic medicine, medicine at the hospital, and traditional medicine. Two respondents indicated that a newspaper was used as treatment. How and why this was done, is not clear. One respondent indicated that her umbilical cord was not treated at all. This question regarding the treatment of umbilical cords after birth was included in the questionnaire on request of health managers in the Tshepo district, since they felt a need to be aware of trends in this regard.

(ii) Teenage births

In the 150 selected households, seven (4.7%) had a teenager residing, who had given birth. Two of these teenage mothers were 18 years old at the time of delivery, while the other five were 19 years old.

(iii) Infant mortality

One female respondent indicated that one of her children, in the age group 1-5 years, had died during the past two years. The cause of death was a combination of flu and measles. Infant mortality is a very important indicator of the general living conditions of a population, as well as the nutritional status of young children after weaning and the success rate of the immunisation programmes among the population in which it occurs (Van Rensburg *et al*, 1992: 162). The sample in this study was too small to generalise any findings in this regard.

(iv) Termination of pregnancy

Only one woman had undergone a termination of pregnancy. A doctor at a hospital had terminated her pregnancy. The reason given why the women terminated her pregnancy was that she had been advised by professional health care workers to do so, since she was ill and not fit for delivery.

(v) Family planning

Nearly two thirds of the respondents (62%; n=93) did not use any form of contraception. Table 25 depicts the type of contraceptives used by the 38% (n=57) of respondents who did use contraception.

Table 25: Type of contraception used

Contraceptive	Number of respondents (n)	Percentage of respondents (%)
Injectable	29	50.9
Condoms	23	40.3
Sterilisation	3	5.3
Oral	2	3.5
Total	**57**	**100.0**

More than half of the respondents (50.9%; n=29) who used contraception, used an injectable contraceptive. Twenty three of the respondents (40.3%) indicated using condoms, three (5.3%) were sterilised and two respondents (3.5%) were using an oral contraceptive. From these findings it could be derived that more women than men took the responsibility for contraception (the combination of injectables and oral contraception imply female utilisation). The fact that nearly two thirds (62%) of the participants in the survey did not use any contraceptives at all is worrying. This is even more so when it is taken into account that only 15.3% of the respondents used condoms, which is the only contraceptive that acts as a barrier to the transmission of HIV/AIDS.

Respondents who were using contraception at the time of the survey, were asked to indicate where they first obtained information about contraception. Table 26 depicts these first time information sources.

Table 26: First time information sources about contraception

Source	Number of respondents (n)	Percentage of respondents (%)
Fixed clinic	20	35.1
Mobile clinic	18	31.6
Hospital	6	10.5
Friends	6	10.5
Sex partners	3	5.3
Media	3	5.3
Family member	1	1.7
Total	**57**	**100.0**

More than a third of respondents (35.1%; n=20) who used contraceptives, had obtained information about contraceptives from a fixed clinic, while just less than a third (31.6%; n=18) obtained it from a mobile clinic. Other sources of information included a hospital (10.5%; n=6), friends (10.5%; n=6), sex partners (5.3%; n=3), the media (5.3%; n=3) and a family member (1.7%; n=1).

3.1.5. Health status of persons older than 60 years

The sample included 18 people older than 60 years of age, eight of whom were female and ten, male. Three of the respondents, who were supposed to participate in this section, did not. This was due to a mistake made by the interviewers.

Ten of the respondents indicated that they received a state pension, while five indicated not receiving any pension. Four of those persons who received a pension indicated that they had people dependent on them for this money. This did not matter to the pensioners who willingly shared their pensions because they lived with the people dependent on them.

Eight of the fifteen respondents older that 60 years indicated that they were in good health and six indicated that in comparison to other people their age, they were in bad health. One respondent indicated being uncertain of his/her health condition compared to others the same age.

Six of the fifteen participants older than 60 years indicated that they were experiencing difficulty in carrying out daily tasks. Table 27 depicts the physical difficulty experienced by these people.

Table 27: Physical problems that make it difficult for respondents to carry out daily tasks

Problem	Number of responses (n)
Difficulty walking or moving	6
Difficulty seeing	5
Difficulty learning or understanding	4
Difficulty hearing	1

*Number of responses, not respondents

All six respondents who indicated that they experienced difficulties carrying out daily tasks, had difficulty walking or moving, five experienced difficulty seeing, four experienced difficulty learning or understanding and one experienced difficulty hearing.

Six of the respondents indicated that they needed equipment to assist them to cope with these difficulties. All five of the respondents who had difficulty seeing, indicated that they needed glasses to see better. Two of them had glasses and the other three, did not. Two of the six respondents who had difficulty walking or moving, indicated that they needed a walking aid to get around, and did not currently have one. One of the four respondents who indicated that they had difficulty hearing or understanding, indicated that a hearing aid was needed to hear properly. The respondent indicated having had one.

3.2. Mortality

3.2.1. Household deaths during the past two years

Respondents were asked whether anyone in their households had died during the past two years. Seven deaths occurred during this period. The mortality rate for this study population was 9.0/1000. Taken into account that the mortality rate for the Free State, for 1995, was 7.1/1000,

and for South Africa, in the same year, 5.3/1000, the mortality rate for this study population is high (Central Statistical Service, 1994). Table 28 depicts the causes of these deaths, age at the time of death as well as the gender of the deceased.

Table 28: Causes of death, age when died and gender of deceased

Cause of death	Age when died	Gender
uncertain, person was ill	Unknown	male
uncertain, person was ill	3 months	male
uncertain, person was ill	4 years	male
uncertain, person was ill	40 years	male
sugar diabetes	30 years	male
"head problem"	1 year	male
fatal injury	33 years	male

All the deceased were male. Four of the respondents indicated that they did not know what the cause of death was, but that the person who had died, was ill before death. A thirty year old died of sugar diabetes and a thirty three year old died of a fatal injury. A one year old child died of a "head problem". The cause of the latter death is not clear either, which renders five of the seven causes of death uncertain.

3.2.2. Infant and under five mortality

All the babies that were born to the study population in the last two years, were live births. Only one child, under five years of age, died during the past two years.

4. Knowledge and behaviour indicators of health

4.1. Blood pressure scanning

Not even a third of respondents (29.3%; n=44) had their blood pressure taken during the past twelve months. Of those that had their blood pressure taken, 79.5% (n=35) indicated that their blood pressure was normal the last time it was taken, 11.4% (n=5) had high blood pressure and 9.1% had low blood pressure (n=4). Table 29 depicts the facilities at which respondents had their blood pressure taken.

Table 29: Facilities where blood pressure was taken

Facility	Number (n)	Percentage (%)
Mobile clinic	16	36.3
Bothaville clinic	8	18.2
Bothaville hospital	6	13.6
Doctor in Bothaville	6	13.6
Doctor in Orkney	2	4.5
Kgotsong clinic	1	2.3
Doctor in Leeudoringstad	1	2.3
Virginia hospital	1	2.3
Klerksdorp hospital	1	2.3
Allanridge chest hospital	1	2.3
No answer	1	2.3
Total	44	100.0

The majority of respondents (56.8%; n=25) had their blood pressure taken at either a mobile or a fixed clinic. More than a third (36.3%; n=16) of these respondents had their blood pressure taken at a mobile clinic. Less than a quarter (20.4%; n=9) had it taken by a doctor. The same number of respondents had their blood pressure taken at a hospital.

When taken into account that all the respondents resided in the Bothaville magisterial district, it is interesting to note that 13.6% of them had their blood pressure taken outside of the district or by private doctors. Some of these cases (6.8%; n=3) could be ascribed to referral to other hospitals, but the other three patients, who went to doctors other than the Bothaville DMOs, could be indicative of a dysfunctional referral pattern, or else the patients may have preferred the other doctors.

4.2. Dental health

Respondents were asked whether they ever had problems with their oral health. Thirty nine of the respondents (26.2%) indicated that they had problems with their teeth at one stage in their lives. Three (2.0%) indicated having had problems with their mouths and another three (2.0%) indicated having had problems with their gums. Of these 45 people (30% of all the respondents) who had problems, 28 (62.2% of those with problems) indicated having sought treatment for their problem. Of those who sought treatment, twenty four (85.7%) indicated that they went to a dentist, three (10.7%) had asked someone to pull out the tooth that bothered them and one respondent (3.6%) went to a district medical officer for treatment.

5. Risk taking behaviour

5.2. Tobacco use

Slightly less than half (44%; 66) of the respondents indicated that they had smoked at some stage in their lives, 51 (77.3%) of whom were men and 15 (22.7%), women. One of the female respondents indicated that she quit smoking, therefore 43.3% of adults were still smoking at the time of the survey (78.5% of them male and 21.5% female). Since all the respondents were adults (20 and older), this percentage can be compared to that of the Free State and South Africa

for adult smokers. When broken down in terms of gender, 34% of adult male respondents smoked, this percentage is lower than that of the Free State (44%) and the national percentage (42%) for 1998, as was the case for the females with 9.3% of them being smokers, which was lower than the Free State and national percentage of 11% respectively for 1998 (*South African Health Review*, 1999: 402). Table 30 depicts the regularity of smoking habits.

Table 30: Regularity of smoking

Regularity of smoking	Number of respondents who smoke (n)	Percentage of respondents who smoke (%)
1 -5 cigarettes per day	33	50.8
6 - 10 cigarettes per day	12	18.5
Regularly	17	26.1
Not regularly	3	4.6
Total	**65**	**100.0**

More than half of the respondents who smoked (50.8%; n=33), smoked between one and five cigarettes per day. More than a quarter of the respondents (26.1%; n=17) indicated that they smoked regularly, without indicating how many cigarettes per day. Three of the respondents (4.6%) indicated not smoking regularly.

More than a quarter of the respondents (26.7%; n=40) indicated that they used snuff, 38 (95%) of these were women and only 2 (5%), men. Those who snuffed, were asked how regularly they did so. The regularity of snuffing is shown in Table 31.

Table 31: Regularity of snuffing

Regularity of snuffing	Number of respondents who snuff (n)	Percentage of respondents who snuff (%)
1 - 5 times per day	21	53.8
6 - 10 times per day	4	10.3
Regularly	8	20.5
Not regularly	3	7.7
No indication	3	7.7
Total	**39**	**100.0**

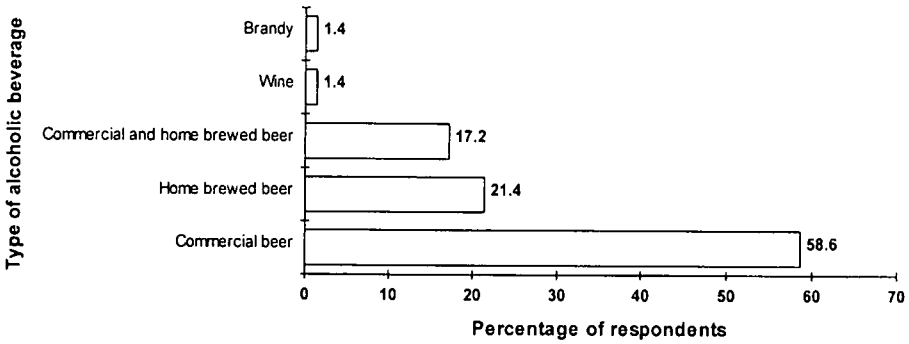
More than half of the respondents (53.8%; n=21) who used snuff, did so one to five times per day. Four respondents (10.3%) used snuff between six and ten times per day. Just more than a fifth (20.5%; n=8) used snuff regularly, while 7.7% (n=3) did not use snuff regularly. A further three respondents (7.7%) did not indicate how regularly they snuffed.

Only one respondent chewed tobacco, and indicated doing so once a day. A total of 71.3% (n=107 of the n=150) of respondents used tobacco, either by smoking it, snuffing it or chewing it. None of the respondents who indicated that they used tobacco, used it in more than one way, they either smoked, snuffed or chewed it.

5.3. Alcohol use

Seventy (46.7%) of the 150 respondents indicated that they drank an alcoholic beverage of some kind, of whom 18 (25.7%) were women and 52 (74.3%), men. Figure 8 depicts the types of alcoholic beverages drunk by the Bothaville rural community.

Figure 8: Type of alcoholic beverage drunk



More than half of the respondents (58.6%; n=41) who indicated that they drank an alcoholic beverage, indicated that they drank a commercial beer (e.g. Lion, Castle, etc.). Fifteen (21.4%) indicated drinking only home brewed beer and a further 12 (17.2%) indicated drinking commercial and home brewed beer. Only one respondent (1.4%) drank wine and one (1.4%), brandy.

More than two thirds of respondents (71.4%; n=50) indicated that they enjoyed an alcoholic beverage only during weekends, while 17.2% (12) indicated that they only drank occasionally, i.e. around Christmas time or at parties. Four respondents (5.7%) indicated that they only drank at the end of the month, while two (2.9%) indicated that they drank as long as they had money to buy alcoholic beverages. One respondent (1.4%) indicated drinking regularly and another respondent (1.4%), drank every day.

5.4. Sexual behaviour

Sexual behaviour is discussed here under the heading "Risk taking behaviour" because of the causal relationship between permissive sexual behaviour and HIV/AIDS.

5.4.1. Number of sexual partners

The majority of respondents (69.3%; n=104) had only one sexual partner during the past 12 months. Nine of the respondents (6%) had two partners, three had three partners (2%) and only one (0.7%) respondent indicated having had more than three partners in the past year (having had four). Nearly a quarter (20.7%; n=31) of respondents indicated not having been sexually active during the past twelve months. Two respondents (1.3%) did not answer this question.

5.4.2. Age at first sexual intercourse

Nearly a quarter (24%; n=36) of the respondents were 16 years old when they first had sexual intercourse. Table 32 depicts ages of respondents when they first had sexual intercourse.

Table 32: Age at first sexual intercourse

Age in years at first sexual intercourse	Number of respondents (n)	Percentage of respondents (%)
< 10	1	0.7
10 – 15	20	13.3
16 – 20	95	63.3
21 – 25	13	8.7
26 – 30	5	3.3
31 – 35	1	0.7
36 – 40	0	0.0
41 – 45	0	0.0
46 - 50	1	0.7
Never had sexual intercourse	6	4.0
No answer	8	5.3
Total	**150**	**100.0**

Nearly two thirds (63.3%; n=95) of the respondents were between the ages of 16 and 20 when they first had sexual intercourse. Twenty (13.3%) of the respondents were between the ages of 10 and 15 when they first had intercourse, while one respondent indicated having sexual intercourse for the first time at the age of seven. Four percent (n=6) of the respondents indicated that they never had intercourse before.

5.4.3. Knowledge about HIV/AIDS

Nearly two thirds of the respondents (63.3%; n=95) indicated that they believed that a disease called AIDS exists, and 62% (n=93) indicated that they knew what AIDS is. Table 33 depicts the sources of their knowledge about AIDS.

Table 33: Sources of knowledge about AIDS

Source	Number of respondents (n)	Percentage of respondents (%)
Media	69	74.2
Friends	8	8.6
Mobile clinic	6	6.4
Fixed clinic	5	5.3
Nurses	2	2.2
At work	1	1.1
Hospital	1	1.1
Mine workers in the area	1	1.1
Total	**93**	**100.0**

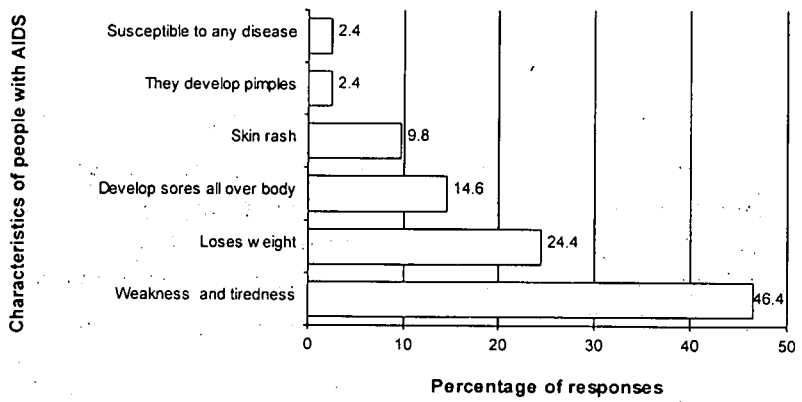
Nearly three quarters (74.2%; n=69) of the respondents who indicated that they knew what AIDS is, said that they learnt most of what they knew from the media (this included news papers, magazines, the radio and television). Other significant sources of information were friends (8.6%; n=8), a mobile clinic (6.4%; n=6), a fixed clinic (5.3%; n=5) and nurses from either a mobile or a fixed clinic (2.2%; n=2).

Thirteen of the respondents (8.7% of the study population) knew someone suffering from AIDS. Six of the thirteen (46.1%) had a friend with AIDS, four (30.8%) had a colleague with AIDS, two (15.4%) a distant relative and one, an acquaintance (7.7%).

Twenty five respondents (16.7%) indicated that a person with AIDS look different from other people, while 62 respondents (41.3%) indicated that a person with AIDS did not look different. Sixty three of the respondents (42%) indicated that they were uncertain.

The 25 respondents who indicated that a person with AIDS looks different from other people, motivated their answers by describing characteristics of people with AIDS. Figure 9 depicts these characteristics.

Figure 9: Characteristics of people with AIDS



Nearly half of the responses (46.4%; n=19) who indicated that people with AIDS look different from other people, specified that the people with AIDS are weak and tired all the time. Nearly a quarter (24.4%; n=10) remarked that people with AIDS lose a lot of weight and 14.6% (n=6) stated that they develop sores all over their bodies. Four responses (9.8%) specified that people with AIDS develop a skin rash, while one (2.4%) commented that they develop pimples and another (2.4%), that they are susceptible to any disease.

6. Health seeking behaviour

6.1. Less serious ailments

Respondents were asked where they would seek medical assistance first if they were not seriously ill. Table 34 depicts the health seeking behaviour of the study population if they were not seriously ill.

Table 34: Health seeking behaviour in case of less serious ailments

Facility	Number of respondents (n)	Percentage of respondents (%)
Nowhere, treat themselves	31	20.6
Fixed clinic	28	18.6
Mobile clinic	22	14.7
General practitioner	22	14.7
Family member	21	14.0
Farmer's wife or farmer self	20	13.3
Hospital	1	0.7
Traditional faith healer	1	0.7
Friends	1	0.7
Pharmacy	1	0.7
No response	2	1.3
Total	**150**	**100.0**

More than one fifth (20.6%; n=31) of respondents treated themselves when not seriously ill. Twenty eight (18.6%) of the respondents, went to a fixed clinic first. Twenty two (14.7%) of the respondents went to the mobile clinic first, while the same number, went to a doctor first. Fourteen percent (n=21) went to a family member and 13.3% (n=20), to the farmer's wife or farmer. Others went to the hospital, traditional faith healer, a friend and the pharmacy. Two of the respondents (1.3%) did not answer this question.

Reasons given by the respondents why they went there first for assistance, are depicted in Table 35.

Table 35: Reasons why respondents choose to treat themselves when not seriously ill

Reason	Number of responses (n)	Percentage of responses (%)
Not necessary to go anywhere when not seriously ill	28	90.3
It saves money	2	6.5
Transport problems into town	1	3.2
Total	**31**	**100.0**

The majority of respondents (90.3%; n=28) indicated that it was not necessary to go anywhere when not seriously ill, while two respondents (6.5%) indicated they treated themselves in order to save money, while one respondent (3.2%) indicated that it was difficult to get to town, therefore self-treatment is a better option when not seriously ill.

Those respondents who went to a fixed clinic for treatment when not seriously ill, provided the following reasons (Table 36) for doing so:

Table 36: Reasons why respondents choose to go to a fixed clinic first when not seriously ill

Reason	Number of responses (n)*	Percentage of responses (%)**
Suitable medicine	10	30.3
It is free	7	21.2
Good service	5	15.2
Nurses are qualified to help	3	9.1
Treatment is good	2	6.1
General check-up is good	2	6.1
To get a referral letter	1	3.0
DMO does sessions there	1	3.0
Have to go there before to another health care facility	1	3.0
It is my first preference	1	3.0
Total	33	100.0

*Number of responses, not respondents
**Percentage of responses, not respondents

Nearly a third of the respondents (30.3%; n=10) who went to a clinic first when not seriously ill, indicated that they did so because the fixed clinic had suitable medicine. Nearly a quarter (21.2%; n=7) did so because it was free, while 15.2% (n=5) did so because they received good service at the fixed clinic. Nearly 10% (9.1%; n=3) of respondents went to the fixed clinic first because the nurses there were qualified to help them. Other reasons for going to the fixed clinic first were because they regarded the treatment they received as good (6.1%; n=2), the general check-up they received was satisfactory (6.1%; n=2), and because of having received a referral letter (3%; n=1), the DMO did sessions there (3%; n=1), they had to go there before being referred to another service if necessary (3%; n=1) and that the fixed clinic was their first preference (3%; n=1).

More than fourteen percent of respondents indicated that they went to a mobile clinic first when not seriously ill. Reasons for doing so are depicted in Table 37.

Table 37: Reasons why respondents choose to go to a mobile clinic first when not seriously ill

Reason	Number of responses (n)*	Percentage of responses (%)**
The nurses are qualified to help me	13	59.1
It brings health services closer to us	4	18.2
It is free	2	9.1
They supply medicine every time	2	9.1
Go to mobile before ill, because prevention is better than cure	1	4.5
Total	22	100.0

* Number of responses, not respondents
** Percentage of responses, not respondents

More than a half of the responses (59.1%; n=13) stated that nurses at the mobile clinics are qualified to help with less serious ailments. More than 18% (18.2; n=4) of the responses were that mobiles bring services closer to them. A total of 9.1% (n=2) of responses were that mobile services are free, while the same percentage was that they used it because they received medicine every time. One response (4.5%) suggested that it was better to go to a mobile clinic before getting ill, because prevention is better than cure.

A further 14.7% of respondents indicated that they went to the general practitioner (GP) first when they were not seriously ill. Table 38 depicts the reasons why they went to the GP first.

Table 38: Reasons why respondents choose to go to a GP first when not seriously ill

Reason	Number of responses (n)*	Percentage of responses (%)**
GP is competent and will always be able to help	16	72.8
He examines thoroughly	2	9.1
I trust him	1	4.5
He gives injections	1	4.5
No reason	2	9.1
Total	**22**	**100.0**

*Number of responses, not respondents
**Percentage of responses, not respondents

Nearly three quarters (72.8%; n=16) of responses suggested that the doctor is competent and always able to help, while 9.1% (n=2) were that the doctor examines thoroughly. One respondent (4.5%) indicated trusting the doctor and therefore going there first, while another (4.5%) said the doctor gave injections. Two respondents (9.1%) gave no reason for their answer.

Fourteen percent (n=21) of respondents indicated that they would go to a family member first when not seriously ill. Table 39 depicts their reasons.

Table 39: Reasons why respondents choose to go to a family member when not seriously ill

Reason	Number of responses (n)	Percentage of responses (%)
It is the nearest help	17	77.3
They will get help	3	13.7
They will advise me where to go for help	1	4.5
They will take me to the farmer for treatment	1	4.5
Total	**22**	**100.0**

* Number of responses, not respondents
** Percentage of responses, not respondents

The majority of the respondents (77.3%; n=17) who indicated that they would go to a family member first, indicated that they did so because they were the nearest source of help. Three responses (13.7%) were that the family member would get help, one response (4.5%) was that the family would advise him/her where to go for help, while another one (4.5%) was that the family member would assist them to reach the farmer for treatment.

Twenty of the respondents indicated that they would go to the farmer or his wife if not very ill. Table 40 depicts the reasons given for their choice.

Table 40: Reasons why respondents choose to go to the farmer or his wife when not seriously ill

Reason	Number of responses (n)*	Percentage of responses (%)**
They should know that I am ill and decide what to do	5	25
It is the nearest treatment	5	25
I live alone, it is my only option	1	5.0
She will give me transport money to go to the doctor	1	5.0
We are not allowed to seek treatment elsewhere	1	5.0
She will take me to the doctor	1	5.0
No answer	6	30
Total	**20**	**100.0**

*Number of responses, not respondents
**Percentage of responses, not respondents

Nearly a third of the respondents (30%; n=6) who indicated that they would go to the farmer or his wife first when not seriously ill, gave no reasons for their answer. A quarter (25%; n=5) of the responses were that the farmer or his wife would decide what to do about their ailment and another quarter (25%; n=5) stated that it was the nearest treatment available.

One respondent each indicated that they would go to the hospital, traditional faith healer, a friend or the pharmacy first for help when not seriously ill. Reasons for this were the following:

- **The hospital**, because it provides better service than the clinics.
- **The traditional faith healer**, because it is the nearest to my house.
- **My friend**, because my friend is the one who assists me with everything.
- **The pharmacy**, because I trust the pharmacist.

6.2. Serious ailments

Respondents were asked where they would seek medical assistance first if they were seriously ill. Table 41 depicts the health seeking behaviour of the study population if they were seriously ill.

Table 41: Health seeking behaviour in case of serious ailments

Facility	Number of respondents (n)	Percentage of respondents (%)
GP	108	72.0
Fixed clinic	13	8.7
Hospital	11	7.3
Farmer or his wife	10	6.7
Mobile clinic	5	3.3
Traditional faith healer	1	0.7
Pharmacy	1	0.7
No answer	1	0.7
Total	**150**	**100.0**

Nearly three quarters of the respondents (72%; n=108) preferred going to the doctor when seriously ill. Almost 9% (8.7%; n=13) preferred the fixed clinic when seriously ill, while 7.3% (11) preferred the hospital and 6.7% (n=10) preferred to go to the farmer or his wife when seriously ill. A mere 3.3% (n=5) preferred the mobile clinic, while 0.7% (n=1) preferred to go to a traditional faith healer and a further 0.7% (n=1) preferred the pharmacy when seriously ill. One respondent (0.7%) did not answer the question.

Reasons given by the respondents why they preferred to go to a GP for help in case of serious ailments, are depicted in Table 42.

Table 42: Reasons why respondents prefer the GP in case of serious illness

Reason	Number of responses (n)*	Percentage of responses (%)**
He is knowledgeable to diagnose and treat me	54	38.3
He provides good treatment and medication	26	18.4
He gives injections	24	17.0
He provides better treatment than the other facilities	10	7.1
He examines thoroughly	8	5.7
The doctor is the only one who can cure	7	5.0
I trust only the doctor with serious ailments	7	5.0
He gives a good explanation of what is wrong with me	3	2.1
He has better equipment to help me	1	0.7
Waiting time shorter at doctor's surgery	1	0.7
Total	**141**	**100.0**

* Number of responses, not respondents
** Number of responses, not respondents

More than a third of the responses (38.3%; n=54) were that the doctor is knowledgeable to diagnose and treat patients who are seriously ill. Nearly one fifth of the responses (18.4; 26) suggested that a doctor provides good treatment and medication, while 17% (n=24) indicated that the doctor gives injections. Other reasons were that the doctor provides better service than the other facilities (7.1%; n=10), he examines thoroughly (5.7%; n=8), he is the only one who can cure (5%; n=7), a doctor is trusted in serious cases (5%; n=7), he gives a good explanation about what is wrong (2.1%; n=3), he has better equipment to help (0.7%; n=1) and that the waiting time at his surgery is shorter than at other facilities (0.7%; n=1).

Reasons given by the respondents why they preferred to go to a fixed clinic (8.7%; n=13) for help when seriously ill, are depicted in Table 43.

Table 43: Reasons why respondents prefer the fixed clinic in case of serious illness

Reason	Number of responses (n)*	Percentage of responses (%)**
They provide me with good and suitable medicine	6	35.3
The doctor do sessions there	5	29.4
Have to go there before going anywhere else	3	17.6
It is free	1	5.9
It is my first preference	1	5.9
It is adequately equipped to help me	1	5.9
Total	17	100.0

*Number of responses, not respondents
**Percentage of responses, not respondents

More than a third (35.3%; n=6) of the responses stated that a fixed clinic provides patients with suitable medication. More than a quarter (29.4%; n=5) were that the doctor does sessions there, while 17.6% (n=3) were that one has to go to the fixed clinic before going anywhere else. One respondent preferred the fixed clinic because it is free (5.9%; n=1), another because it simply was her/his first preference (5.9%; n=1) and one respondent (5.9%; n=1) indicated that a fixed clinic is adequately equipped to help seriously ill patients.

Reasons given by the respondents (7.3%; n=11) why they preferred to go to a hospital for help when seriously ill are depicted in Table 44.

Table 44: Reasons why respondents prefer the hospital in case of serious illness

Reason	Number of responses (n)*	Percentage of responses (%)**
I trust the hospital in serious cases	6	46.1
There are doctors who give special attention	4	30.8
There are doctors who give injections	1	7.7
The hospital's services are better than the clinic's	1	7.7
The hospital can help me faster than the other facilities	1	7.7
Total	13	100.0

* Number of responses, not respondents
** Percentage of responses, not respondents

Nearly half of the responses (46.1%; n=6), were that the hospital could be trusted to deal with serious cases. Nearly a third (30.8%; n=4) stated that the doctors at a hospital paid special attention to seriously ill patients. One respondent (7.7%; n=1) stated that there are doctors at the hospital who can give injections, another (7.7%; n=1) responded that hospital services are superior to those offered by the clinics and the last respondent (7.7%; n=1) remarked that the hospital can help faster than other facilities.

Reasons given by the respondents why they preferred to go to the farmer or his wife (6.7%; n=10) for help when seriously ill, are depicted in Table 45.

Table 45: Reasons why respondents prefer to go to the farmer or his wife first in case of serious illness

Reason	Number of responses (n)*	Percentage of responses (%)**
So that they can transport me to the doctor	6	54.5
She will decide where I should go	2	18.2
She is near and always willing to help	1	9.1
She will give me money to go to the doctor	1	9.1
To ask permission to go to the doctor in town	1	9.1
Total	**11**	**100.0**

* Number of responses, not respondents
** Percentage of responses, not respondents

More than half of the responses (54.5%; n=6) were that the farmer or his wife could supply transport to the doctor in town. Two respondents (18.2%) indicated that the farmers' wife decides what to do when the farm workers fall seriously ill. One respondent (9.1%) reported that the farmer's wife is near and always willing to help when they get seriously ill, while another (9.1%) stated that the farmer's wife supplies the money for farm workers who need to go to the doctor when they are seriously ill, and a further respondent (9.1%) indicated that they have to ask permission to go to the doctor when they get seriously ill.

Reasons given by the respondents (3.3%; n=5) why they preferred to go to the mobile clinic for help when seriously ill are depicted in Table 46.

Table 46: Reasons why respondents prefer the mobile clinic in case of serious illness

Reason	Number of responses (n)*	Percentage of responses (%)**
The nurses have the knowledge to help me	2	40.0
They provide good care and examines me thoroughly	1	20.0
To get a referral letter to be able to go to the doctor	1	20.0
No reason	1	20.0
Total	**5**	**100.0**

* Number of responses, not respondents
**Percentage of responses, not respondents

Two of the respondents (40%) indicated that they first went to a mobile clinic for help when seriously ill because they believe that the nurses have knowledge to help them. One respondent (20%) indicated that the mobiles provide good care and the nurses examine them thoroughly and another respondent (20%) stated that they go to a mobile first to obtain a referral letter to go to the doctor when seriously ill. One respondent (20%) did not give a reason why he/she preferred going to a mobile clinic when seriously ill.

One respondent each indicated that they preferred going to a traditional faith healer and a pharmacy when seriously ill. Their reasons were the following:

- **Traditional faith healer**: Because I trust that he can cure me (0.7%; n=1).
- **Pharmacist**: No reason (0.7%; n=1).

6.3. Clinic-specific health seeking behaviour

Respondents were asked whether they preferred a mobile clinic or a fixed clinic in Bothaville. Their responses are depicted in Table 47.

Table 47: Clinic preference (if any)

Preference	Number of respondents (n)	Percentage of respondents (%)
Mobile clinic	70	46.6
Fixed clinic	42	28.0
None - I have never been to either	13	8.7
None - I only go to the doctor	11	7.3
None - the mobile does not come here anymore	8	5.3
None - I only go to the hospital	1	0.7
None - I never got ill before	1	0.7
No answer	4	2.7
Total	150	100.0

The majority of the respondents (46.6%; n=70) preferred a mobile clinic, while more than a quarter (28%; n=42) indicated that they preferred a fixed clinic. Nearly a quarter of respondents (22.7%; n=34) never went to a clinic. Reasons for this were that they had never been to either before (8.7%; n=13); they only used the services of the doctor (7.3%; n=11); the mobile did not come to the farm anymore (5.3%; n=8); only hospital services are used (0.7%; n=1); and that he/she never got ill before (0.7%; n=1). Four respondents (n=2.7%) did not answer this question.

Reasons why respondents preferred a mobile clinic as opposed to preferring a fixed clinic (46.6%; n=70), are depicted in Table 48.

Table 48: Reasons why respondents prefer the mobile clinic

Reason	Number of responses (n)*	Percentage of responses (%)**
It saves us time because it brings service closer	73	86.8
It is convenient because it comes every month now	2	2.4
They provide us with good health information	2	2.4
They give us medicine every time	2	2.4
The nurses know us and care for us	2	2.4
Other	3	3.6
Total	84	100.0

* Number of responses, not respondents
** Number of responses, not respondents

The vast majority of responses (86.8%; n=73) suggested that respondents preferred the mobile to the fixed clinic because the mobile saves time and money and brings the services closer to people on the farms.

Those respondents who preferred a fixed clinic to a mobile clinic, gave the following reasons, as can be seen in Table 49.

Table 49: Reasons why respondents preferred a fixed clinic to a mobile clinic

Reason	Number of responses (n)*	Percentage of responses (%)**
Good/better treatment/medicine/examination is provided	17	30.3
The mobile units do not visit the farm/they stop too far	12	21.4
The service is nearer	4	7.1
I do not trust the mobiles	3	5.4
The service is always available/mobiles not here when I have problems	3	5.4
Other	17	30.4
Total	**56**	**100.0**

* Number of responses, not respondents
** Percentage of responses, not respondents

Nearly a third (30.3%; n=9) of the responses were that the fixed clinic provided good or better treatment, medicine and better examinations (therefore, it was a better service), while 21.4% (n=12) suggested that a mobile clinic does not go to the farm on which they reside or that it stops too far away. A total of 7.1% (n=4) stated that the fixed clinic is the nearest to them.

6.4. Clinic attendance in other towns

Thirteen respondents (8.7%) indicated that they had attended a clinic in another town, four of whom had attended a clinic in Orkney, two in Odendaalsrus, one in Klerksdorp, one in Viljoenskroon, one in Mafikeng, one in Hennenman, one in Allanridge, one in Wesselsbron and the last, in Welkom. Of these, ten indicated that they were visiting someone at the time in the other town and had to go to the clinic there, one indicated that Orkney was the closest town to them, one attended school in Wesselsbron and the last indicated having been a child, when his/her parents took him/her to a clinic in Welkom. Since the majority of the respondents who indicated having had visited a clinic in another town, indicated it was because they had no choice while visiting someone there, it could mean that the referral system in this area is well on track and that the rural community of Bothaville do not generally use the referral system wrongly.

6.5. Health seeking behaviour in cases of emergency

Twenty eight (18.7%) of the 150 respondents had needed emergency care at least once in their lives. Table 50 depicts the reasons why emergency care was needed by these 28 respondents.

Table 50: Reasons for needing emergency care

Reason	Number of respondents (n)
Knife attack	5
Cut by glass	2
Injured my fingers at work	2
Sports injury	2
Car accident	2
Injured my legs while I was at work	2
A tree fell on me while I was working	1
Boiler exploded and burnt me while I was working	1
Geyser exploded and burnt me while I was working	1
Fell from a roof and injured my hand	1
Cow kicked me	1
Lost middle finger	1
Broke my leg	1
Broke my hipbone	1
Broke my spinal cord	1
Broke my hand	1
Broke my arm	1
Twisted my ankle	1
Fell from a truck	1
Total	28

The most common reason for needing emergency care, was knife attacks (n=5). Other injuries that occurred more than once, were glass cuts (n=2); finger injuries at work (n=2); sports injuries (n=2); car accidents (n=2) and leg injuries while at work (n=2). All the other reasons for needing emergency care, occurred only once in the study population.

The 28 respondents who had needed emergency care, were further asked where they went first for help when they were injured. Table 51 depicts the first point visited when seeking help in times of emergency.

Table 51: First point of seeking help in times of emergency

Facility or person	Number of respondents (n)	Percentage of respondents (%)
Farmer or his wife	16	57.2
Parents	5	17.9
Doctor	2	7.1
Neighbour	2	7.1
Family member	2	7.1
A friend	1	3.6
Total	**28**	**100.0**

More than half of the respondents (57.2%; n=16) who had needed emergency care previously went to the farmer or his wife first after being injured, while 17.9% (n=5) went to their parents first. Two each of the respondents (7.1%) went to the doctor, a neighbour or a family member first. One respondent (3.6%) went to a friend first after being injured.

The respondents waited between two minutes and two days before receiving medical attention from a professional health care facility. Table 52 depicts waiting time before receiving medical attention.

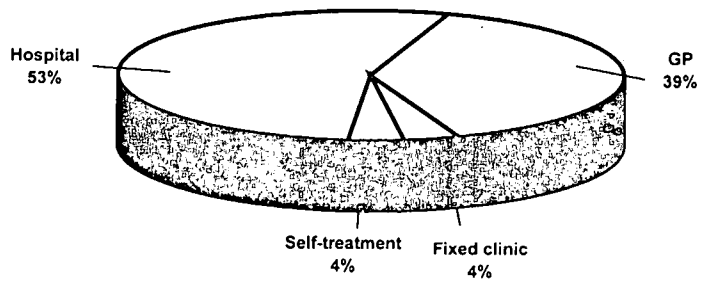
Table 52: Waiting time before receiving medical attention

Waiting time	Number of respondents (n)	Percentage of respondents (%)
1 hour and less	16	57.2
More than 1 hour to 2 hours	5	17.9
More than 2 hours to 3 hours	0	-
More than 3 hours to 4 hours	0	-
More than 4 hours to 5 hours	2	7.1
More than 5 hours	2	7.1
Two days	1	3.6
Cannot remember	2	7.1
Total	**28**	**100.0**

Respondents were asked how long they waited before receiving medical attention when they needed it. This "waiting time" included the time respondents had to travel to a medical facility and waited to receive attention. More than half of the respondents (57.25; n=16) who needed medical attention after having been injured, waited an hour or less before receiving it, while 17.9% (n=5) waited for between one and two hours. Two each of the respondents waited more than four to five hours (7.1%) and more than five hours (7.1%) for medical care after an emergency. One respondent (3.6%) waited two days for medical care. The reason given for waiting so long, was that the farmer would not believe that he was in pain. Two respondents (7.1%) could not remember how long they waited.

The respondents were taken to a hospital, GP and to a fixed clinic for medical treatment after having been injured. Figure 10 depicts where they were taken.

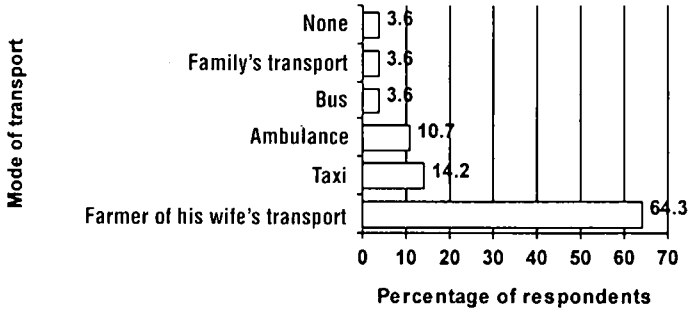
Figure 10: Facility where respondents were taken after being injured



More than half of the respondents (54.0%; n=15) who needed medical attention after being injured, were taken to the hospital. More than a third (39.0%; n=11) were taken to the GP, one (4.0%) was taken to a fixed clinic and one respondent (4.0%) indicated not going anywhere, but treated him/her self.

Because it is always a problem for the rural community to get to a medical facility, they were asked how they were transported to the place of medical treatment after being injured. Figure 11 depicts their responses.

Figure 11: Transportation mode used to reach a medical facility after being injured



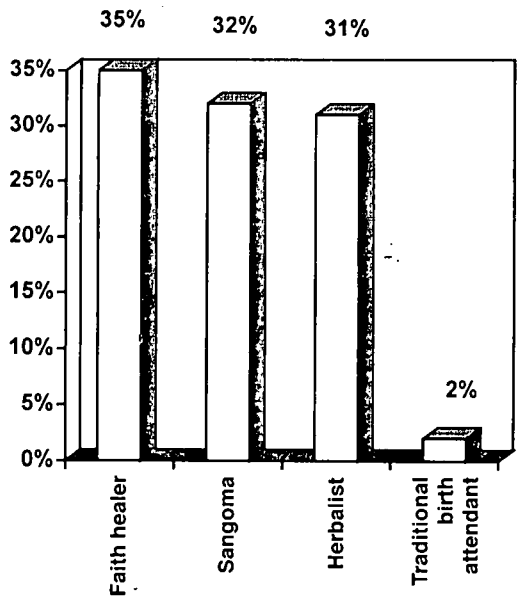
Nearly two thirds of the respondents (64.3%; n=18) were transported to a medical facility by a farmer or his wife. Four respondents (14.2%) were transported by a taxi and three (10.7%) by an ambulance. One respondent each was transported by a family vehicle (3.6%) and a bus (3.6%). One respondent (3.6%) did not go anywhere for medical treatment, but used self-treatment.

6.6. Traditional health care

Quite a high percentage (44%) of the study population believed that traditional health care still has a definite place in modern society. The other 56% believed that traditional medicine no longer has a place in modern society and that western medicine is more effective.

Those who believed that traditional medicine still have a place in our society (44%) have all been to a traditional healer at some stage in their lives. Figure 12 depicts the type of traditional healers they consulted.

Figure 12: Type of traditional healer consulted



* Number of responses, not respondents
** Percentage of responses, not respondents

More than a third of respondents who consulted a traditional healer before, went to a faith healer (35%; n=24), while 32% (n=22) went to a sangoma. Twenty one of the respondents (31%) went to a herbalist, while only one (1.5%) consulted a traditional birth attendant. Responses of the participants (and not merely respondents) are depicted in the above figure because some of the respondents went to more than one type of traditional healer. It is clear, from the data obtained by asking this question, that the practice of using traditional health care in this area is still alive and well.

Some respondents decided to go to a traditional healer themselves, were referred by a family member, friend, spouse, or priest. Table 53 depicts the referring agent to a traditional healer.

Table 53: Person who referred respondents to a traditional healer

Referral agent	Number of respondents (n)	Percentage of respondents (%)
Family member	25	37.9
Spouse	20	30.3
Decided self	11	16.7
Friend	8	12.1
Priest	1	1.5
No answer	1	1.5
Total	**66**	**100.0**

More than a third of those respondents (37.9; n=25) who used the services of a traditional healer before, were referred there by a family member. Twenty (30.3%) of the 66 respondents were referred by a spouse (husband or wife), and 16.7% (n=11) decided to go there themselves. Eight respondents (12.1%) were referred by a friend and one (1.5%) by a priest. One respondent (1.5%) did not identify the referral agent.

Table 54: Outcome of traditional health care

Outcome of treatment	Number of respondents	Percentage of respondents
Successful	54	81.8
Unsuccessful	12	18.2
Total	**66**	**100.0**

The vast majority (81.8%; n=54) of respondents who previously consulted a traditional healer, indicated that the treatment they received there was successful.

7. Evaluation of mobile clinic services

7.1. Utilisation of the mobile clinic services

More than half of the respondents (58.7%; n=89) indicated never having attended a mobile clinic on a farm in the district before. This is one of the most important findings of this study because the mobile clinic services are run by the Department of Health for the exclusive reason of making PHC services more accessible for people in rural areas. It is therefore disturbing that more than

half of the respondents who participated in this survey had never attended these services before. Therefore, reasons given for never having attended the mobile clinic services are important in order to identify possible problems in this regard (see Table 55).

Table 55: Reasons why respondents did not attend a mobile clinic

Reason	N of responses*	% of responses**
I have never/seldom seen it here	23	27.0
I am very healthy, was never necessary	20	23.4
I am never ill when they get here	16	18.8
I am on duty when the mobile clinic stops here	4	4.7
They do not come regularly enough	4	4.7
Only women and children attend the mobile clinic	3	3.4
My clinic card work only in the town clinic	2	2.4
I am treated by the doctor only	2	2.4
They do not have the medicine I need	2	2.4
I prefer the town clinic	2	2.4
I am too old to walk where it stops	1	1.2
They told me to go straight to the doctor	1	1.2
I do not believe in the mobile service	1	1.2
Sister of the mobile is rude	1	1.2
Sister said mobile clinic is just for young people	1	1.2
Mobile clinic nurse told us to go to town	1	1.2
No reason	1	1.2
Total	85	100.0

*Number of responses, not respondents
** Percentage of responses, not respondents

A wide variety of reasons were given why respondents never attended a mobile clinic. More than a quarter (27%; n=23) of respondents indicated that they never or seldom saw a mobile clinic on a farm in the district. Nearly a quarter (23.4%; n=20) of respondents indicated that they have never attended the mobile clinic service because they are very healthy. This substantially reduces the number of responses that could indicate problems with accessibility of the services. More than half (55.2%; n=47) of the responses indicated that the mobile clinics were not accessible in terms of where they stopped and in terms of when they visited farms. These reasons included specifically:

- Patients never or seldom see them on the farm (27.0%; n=23), which could mean that they stop too far away from certain residents and that information about when exactly they will visit a farm is not well enough disseminated;
- certain people felt that the mobiles came to the farm where they are residing only when they are not ill (18.8%; n=16) and therefore do not need to attend the clinic at the specific time, this reason could be seen as an indication of the curative manner in which clients of primary health care still regard the service;
- they are on duty when the mobile clinic visits the farm (4.7%; n=4); and
- the mobile clinics do not go to the farms often enough (4.7%; n=4).

Other reasons why respondents never visited a mobile clinic included an array of misconceptions regarding the PHC system as well as problems with mobile clinic personnel, misunderstandings and personal preferences, can be seen in the above table.

7.2. Awareness of the new mobile clinic system (point system)

A further very important finding of this survey, is that nearly half of the participants (48.7%; n=73), indicated that they were aware of the new mobile visiting point system which had been implemented toward the end of October 1997. This is a clear indication that information about the change in the mobile clinic system in the area was not well enough disseminated before its implementation. It is further quite disturbing that less than a third (30%; n=45) of the respondents in this survey had visited a mobile clinic since the new visiting point system was implemented, keeping in mind that at the time of the survey, the new system had been implemented for between five and six months already.

7.3. Information dissemination regarding the new system

To verify the means used to disseminate information regarding the implementation of the new system, respondents were asked how they were informed about the new system of mobile visiting points. Their answers are depicted in Table 56.

Table 56: First information dissemination sources concerning the new visiting point system

Source	Number of responses (n)*	Percentage of responses (%)**
The farmer's wife told us	13	28.2
The nurses told us	11	23.9
The teacher at the school where it stops, told us	5	10.9
The pupils at the school where it stops, told us	4	8.7
I saw it when it arrived on the farm	4	8.7
The nurses gave us the time table	4	8.7
The farmer told us	4	8.7
My neighbour told me	1	2.2
Total	46	100.0

*Number of responses of those respondents who knew about new system
**Percentage of responses of those respondents who knew about the new system

More than a quarter of the respondents who indicated that they had visited a mobile clinic since the new mobile visiting point system had been implemented, indicated that the information concerning the new visiting point system was disseminated to them by the farmer's wife (28.2%; n=13). This information is verified by the fact that the nurses informed the researcher that they had discussed the point system with all the farm owners and their spouses, on whose farms visiting points were to be established and asked them to let their workers know about the new system. Nearly a quarter (23.9%; n=11) of those respondents who knew about the new system indicated that the mobile clinic nurses told them. Five respondents indicated that the teachers at the nearby farm school told them (10.9%; n=5) and four each (8.7%) stated that the pupils attending the schools told them that they saw the mobile clinic when it arrived at the new points; that the nurses gave them a time table; and that the farmer told them. One respondent indicated that a neighbour provided them with the information (2.2%).

It is clear that no formalised strategy was used to disseminate information concerning the implementation of the new mobile clinic system in the area, and this could be the reason why more than half of the participants in this survey, who are all users or potential users of the service, did not know about the change.

More than half of those respondents (60%; n=27) who had visited a mobile clinic since the new system was implemented, indicated that they always know the exact day when the mobiles will be at the nearest point. Sixteen respondents (35.6%) indicated that they only sometimes knew, while only two respondents (4.4%) indicated that they never know the day. They were asked how information was disseminated to them concerning these dates. Table 57 depicts their responses.

Table 57: Ways in which information about visiting point dates are disseminated

Way	Number of respondents (n)	Percentage of respondents (%)
Nurses tell us about the next date	18	40.0
Farmer's wife tells us about the next date	8	17.8
Nurses gave us the time table	6	13.3
Teacher at school visiting point tells us	4	8.9
Pupils at school with visiting point tells us	4	8.9
No one, I see when it arrives at new visiting point	2	4.5
The nurse writes the next date on my card	1	2.2
The farmer tells me	1	2.2
My neighbour tells me	1	2.2
Total	45	100.0

More than half of the respondents who attended a mobile clinic after the new visiting point system was implemented, indicated that the nurses disseminate the information about the next visiting date (55.5%; n=25), either by telling them while the mobile clinic is at the visiting point (40%; n=18); by giving them a time table with the dates when the mobile will arrive at the visiting point (13.3%; n=6); or by writing the next date on their clinic cards (2.2%; n=1). A fifth (20%) of the respondents indicated that either the farmer (2.2%; n=1) or his wife (17.8%; n=8) tells them about the next date, while 17.8% of the respondents indicated that a teacher at a farm school with a visiting point (8.9%; n=4), or the pupils at such schools (8.9%; n=4), inform them about the next date. Two of the respondents (4.5%; n=2) indicated that no one informs them about the new date, instead they have to watch out for when the mobile arrives at the new visiting point. One respondent (2.2%; n=1) indicated that a neighbour disseminates the information about the new date for the mobile clinic to visit the nearest point.

As was the case with dissemination of information concerning the new mobile clinic system, there is no apparent formal structure of informing the users of the service when the clinic will visit each point. This could have a very negative influence on the accessibility of the service and could be one of the reasons why the service is relatively poorly utilised by the rural dwellers in the area.

7.4. Frequency of utilising the mobile clinic services

The majority of those respondents (80%; n=36) who had attended a visiting point before, indicated that they went there once per month. Five respondents (11.1%) indicated going there once every two months, while three respondents (6.7%) went once every three months and one respondent (2.2%) indicated going once every four months. The fact that nine respondents do not visit the mobile visiting points every month, could be an indication that there is still some confusion about the intervals between visits.

Respondents were further asked how often they made use of the previous mobile clinic system. Table 58 depicts their responses

Table 58: Regularity of visits by those respondents who already made use of the new system, to mobile clinics in the previous system

Regularity	Number of respondents (n)	Percentage of respondents (%)
Once per month	5	11.1
Once every six weeks	4	8.9
Once every two months	13	28.9
Once every three months	14	31.1
Once every four months	3	6.7
Never made use of it	6	13.3
Total	**45**	**100.0**

Nearly a third (31.1%; n=14) of the respondents indicated that they used the previous system once every three months, while 28.9% indicated that they made use of it once every two months. Three respondents indicated using the services once every four months. Six of the respondents (13.3%) had never made use of the previous system, while they are making use of the new system. Nine of the respondents indicated that they made use of the old system either once per month (11.1%; n=5) or once every six weeks (8.9%; n=4), which is improbable since, with the old system, the mobiles did not visit any farm that regularly. Therefore it should again be concluded that there was still substantial confusion about the difference between the old and new mobile clinic system within the Bothaville rural community, and that information dissemination to the clientele of the service, about the operation of the service should receive some immediate attention.

7.5. Advantages and disadvantages of the previous mobile clinic system

Problems experienced with the previous system (by those respondents who have already made use of the new clinic system), are depicted in Table 59.

Table 59: Problems experienced with the old clinic system by those respondents who have already used the new mobile clinic system

Problem	Number of responses (n)*	Percentage of responses (%)**
No problem	21	43.7
It did not come often enough	11	22.9
I never attended the previous system	6	12.5
We did not know when they will arrive on the farm	5	10.4
Never came to our farm	2	4.2
Only women and children used it	2	4.2
Irrelevant answer	1	2.1
Total	**48**	**100.0**

*Number of responses, not respondents
**Percentage of responses, not respondents

While a total of 43.7% (n=21) of the responses indicated no problems with the previous mobile clinic system, nearly a quarter of the responses (22.9%; n=11) were that the farms were not visited often enough. Some of the responses (12.5%; n=6) suggested that a mobile clinic had never been utilised during the previous system. More than ten percent (10.4%; n=5) indicated that the most serious disadvantage of the previous system was that no one knew when the clinics would arrive on the farm. Two each of the responses indicated that the mobiles never went to the farms where the respondents resided during the time when the previous system was in place (4.2%), and that only women and children used the previous system (4.2%). One respondent (2.1%) gave an irrelevant answer to this question.

Respondents were further asked what the advantages of the previous system were. Table 60 depicts the responses to this question

Table 60: Advantages of the previous system of mobile clinics

Advantages of previous system	Number of respondents (n)	Percentage of respondents (%)
No advantages	16	35.6
The two systems are the same to me	13	28.9
I never attended the previous system	5	11.1
Uncertain	4	8.9
It never stopped here in previous system	2	4.4
It used to stop on our farm, but do not anymore	1	2.2
The old system used to dispense medicine for anything, the new do not	1	2.2
Irrelevant answer	2	4.4
No answer	1	2.2
Total	**45**	**100.0**

More than a third of the respondents (35.6%; n=16) felt that the previous system had no advantages, while an ironic 28.9% (n=13) felt that the two systems are the same. This could again be an indication of possible confusion concerning the change that took place in the mobile clinic system, because it seems that some of the respondents did not know the difference between the system as it was before and the way it operated at the time of the survey. Five of the respondents (11.1%) indicated that they never attended the previous mobile clinic system, while 8.9% (n=4) were uncertain about the advantages of the old mobile clinic system. Some of the respondents (4.4%; n=2) indicated that they were not aware of the fact that the mobiles stopped at the farm they resided on during the time in which the previous system was operational, and therefore could not say. One respondent each indicated that with the previous system the mobile had stopped on the farm where they resided but since the implementation of the new system it no longer stopped there (2.2%; n=1). Furthermore, professional nurses, while operating under the old system, used to dispense any kind of medicine, but they no longer do this (2.2%; n=1). Two of the respondents (4.4%) provided irrelevant answers, while one (2.2%) did not answer this question.

More than half (51.1%; n=23) of those respondents who used the new mobile clinic system before, felt that it is an improvement on the old one. Only 13.3% (n=6) felt it is not an improvement, while more than a third of the respondents (35.6%; n=16) indicated being uncertain whether the new mobile clinic system is an improvement or not.

7.6. Accessibility and user-friendliness of the new mobile clinic system

7.6.1. Client satisfaction with mobile clinic services received

More than three quarters of the 45 respondents (77.8%; n=35) who attended a mobile clinic since the implementation of the new system indicated that they are treated well when visiting a mobile visiting point. Five of the respondents (11.1%) indicated being treated poorly at the mobile visiting point, while one respondent (2.2%) indicated being uncertain about how he/she is treated.

Reasons why respondents felt that they are treated well at the mobile visiting point, included the reasons shown in Table 61.

Table 61: Reasons why respondents felt they are treated well at mobile visiting points

Reason	Number of responses (n)	Percentage of responses (%)
The nurses treat us politely	19	35.2
The treatment is good	11	20.4
They examine us thoroughly	5	9.3
They listen to what is wrong with us	5	9.3
They are friendly and always smiling	4	7.4
They are patient	3	5.6
They explain thoroughly what is wrong with us	3	5.6
They give us health education	1	1.8
They are competent	1	1.8
They care about us	1	1.8
Although they don't know what is wrong with me, they try	1	1.8
Total	**54**	**100.0**

*Number of responses, not respondents
**Percentage of responses, not respondents

More than a third of the responses (35.2%; n=19) suggested that the nurses treat them politely, followed by 20.4% (n=11) of the responses which indicated that the treatment they receive at the mobile clinic is good. Five responses each were that they are thoroughly examined (9.3%) and that the nurses listen to what is wrong (9.3%). Four responses were that the nurses are friendly and always smiling (7.4%), three that the nurses are patient (5.6%) and three that they explain thoroughly what is wrong with them (5.6%). One response each indicated that the nurses provide health education (1.8%); that the nurses are competent (1.8%); that the nurses care (1.8%); and that, although the nurses do not know what is wrong with the respondent, they try their best to treat the respondent adequately (1.8%).

Reasons for respondents feeling that they were treated poorly at the mobile clinics, were the following:

- The nurses shout at us (n=1).
- The nurses treat us like animals (n=1).
- The nurses work roughly with us (n=1).
- I am not satisfied with the examination I received at the mobile clinic (n=1).
- The nurses do not listen to what we tell them is wrong (n=1).
- When I asked the nurses for medicine, they said I should go to the doctor (n=1).

The one respondent who was uncertain whether he/she was treated poorly or well by the mobile clinic personnel, indicated feeling so because the nurses were sometimes polite, but when they asked for medication, the nurses were rude.

The majority of these respondents (84.4%; n=38) indicated that the nurses at the mobile visiting points are friendly. Six respondents (13.3%) indicated that they are unfriendly, while one respondent (2.2%) indicated being uncertain. Reasons for the answers are depicted in Table 62.

Table 62: Reasons why respondents felt that nurses at the mobile visiting points are friendly

Reason	Number of responses (n)*	Percentage of responses (%)**
They treat us friendly and politely	37	62.7
They explain thoroughly what is wrong	7	11.8
They are attentive and listen to what is wrong with us	5	8.5
They respect elderly people	4	6.8
They are always smiling	3	5.1
They are patient	2	3.4
They refer us to the doctor when we are very ill	1	1.7
Total	**59**	**100.0**

*Number of responses, not respondents
**Percentage of responses, not respondents

Nearly two thirds (62.7%; n=37) of the responses were that the nurses treat the participants friendly and politely. Seven responses (11.8%) stated that thorough explanations are given concerning what is wrong, while five (8.5%) responses were that the nurses are attentive and listen to what is wrong. The remaining responses indicated that the nurses respect elderly people (6.8%; n=4), that they are always smiling (5.1%; n=3), they are patient (3.4%; n=2) and that they refer patients to the doctor when seriously ill (1.7%; n=1).

The six respondents who indicated that the nurses were unfriendly, gave the following reasons for believing this:

- The nurses are rude (n=6).
- The nurses do not listen to what is wrong (n=2).
- The nurses do not examine them thoroughly (n=1).

The respondent who indicated being uncertain whether the nurses were friendly or not, indicated that they are sometimes polite, but when they ask for medicine, the nurses are rude.

The majority of respondents (84.4%; n=38) indicated that they were satisfied with the health care received at the mobile clinics, while 15.6% (n=7) indicated not being satisfied. Reasons given for satisfaction are depicted in Table 63.

Table 63: Reasons for respondents indicating that they are satisfied with the health care received at mobile clinics

Reason	Number of responses (n)*	Percentage of responses (%)**
Medication and treatment is good	17	35.4
Nurses solve our health problems	8	16.7
Nurses treat us politely	6	12.5
Nurses explain thoroughly what is wrong with us	3	6.2
The service is free	3	6.2
Nurses give good health education	3	6.2
Nurses examine us thoroughly	2	4.2
The mobiles bring services closer to us	2	4.2
Nurses spend enough time with each of us	1	2.1
Nurses are always helpful	1	2.1
They come every month now, which is convenient	1	2.1
Nurses are concerned about our health	1	2.1
Total	48	100.0

* Number of responses, not respondents
** Percentage of responses, not respondents

More than two thirds (35.4%; n=17) of those respondents who indicated that they were satisfied with the services they received at the mobile clinics, felt this way because the medication and treatment provided was good. Eight responses (16.7%) stated that the nurses solved health problems and six (12.5%) that the nurses treated them politely. Three responses each indicated that the nurses explained thoroughly what is wrong (6.2%), that the services were free (6.2%) and that the nurses provided good health education (6.2%). Two responses each were that the nurses examined thoroughly (4.2%) and that the mobiles brought the services closer to them (4.2%). One response each indicated that the nurses spent enough time with patients (2.1%), they were always helpful (2.1%), they came every month now, which is convenient (2.1%) and that the nurses are concerned about their health (2.1%).

The seven respondents who indicated that they were not satisfied with the service provided by the mobile clinics, gave the following reasons for their answers:

- Their medicine does not work (n=3).
- They do not spend enough time with each of us (n=1).
- They cannot help me get pregnant (n=1).

- They cannot solve my health problems (n=1).
- They are rude to us (n=1).

Respondents who made use of the new mobile clinic system before, were asked to rate their satisfaction with some aspects of the mobile clinic service. Table 64 depicts their ratings.

Table 64: Rating of mobile clinic services and medicine

Service/medicine	Satisfied n (%)	Uncertain N (%)	Dissatisfied n (%)	Total n (%)
Examination	39 (86.6%)	3 (6.7%)	3 (6.7%)	45 (100%)
Explanation of ailment	37 (82.2%)	3 (6.7%)	5 (11.1%)	45 (100%)
Treatment of ailment	37 (82.2%)	3 (6.7%)	5 (11.1%)	45 (100%)
Medication	36 (80.0%)	2 (4.4%)	7 (15.6%)	45 (100%)
Advice on prevention	37 (82.2%)	2 (4.4%)	6 (13.4%)	45 (100%)

Respondents were mostly satisfied with the services and medicine provided by the mobile clinics. None of the services or the medication had less than 80% satisfaction rate. A mean of 82.6% (n=37.2) of respondents indicated being satisfied. A mean of 5.8% (n=2.6) of the respondents were uncertain about their satisfaction concerning the services and medicine provided by the mobiles, while a mean of 11.6% (n=5.2) of respondents were dissatisfied with the services and medicine provided by the mobile clinic service.

It is apparent from the data concerning client satisfaction that the vast majority of users of these mobile clinics were generally satisfied with the services they received, since they were treated well; the nurses were generally friendly; they were satisfied with the examinations and explanations concerning what was wrong with them; the treatment of their ailments; the medication they received; and advice on prevention of their ailments.

7.6.2. Health information received

Respondents were further asked whether they received health information from the mobile clinic nurses. Table 65 depicts whether those respondents who have used the new mobile system received health information there.

Table 65: Health information dissemination by mobile clinic nurses

Type of health information	Received before n (%)	Did not receive before n (%)	Total n (%)
Family planning	31 (68.9%)	14 (31.1%)	45 (100%)
STDs	33 (73.3%)	12 (26.7%)	45 (100%)
Pregnancy	30 (66.7%)	15 (33.3%)	45 (100%)
Contraceptive use	36 (80.0%)	9 (20.0%)	45 (100%)
Rape	29 (64.4%)	16 (35.6%)	45 (100%)
Parenthood	30 (66.7%)	15 (33.3%)	45 (100%)
HIV/AIDS	33 (73.3%)	12 (26.7%)	45 (100%)
Nutrition	33 (73.3%)	12 (26.7%)	45 (100%)

A mean of 70.8% of respondents indicated that they received health information on the categories as shown in the above table, while a mean of 29.2% indicated not having received any information. It should be kept in mind, though, that only women would probably be educated about pregnancy and rape. Prevention and health education are important components of PHC, therefore a higher average than the 70.8% of respondents who received health information would have been expected.

7.6.3. Transportation to mobile visiting points

The majority of respondents (54.5%) are taken to the stopping points by the farmer or his wife (on whose farm they reside), while 3% of respondents indicated that they were transported by the farmer on another farm in the area. The remaining respondents walked to the stopping points or found another means to get there.

7.6.4. Waiting time

The majority of respondents (84.4%; n=38) indicated that they had to wait in a queue before being attended to at a mobile visiting point. Waiting times before being attended to are depicted in Table 66.

Table 66: Time spent waiting before respondents were attended to at a mobile clinic

Waiting time	Number of respondents (n)	Percentage of respondents (%)
Less than 10 minutes	23	60.5
10 - 19 minutes	9	23.7
20 - 29 minutes	3	7.9
30 - 39 minutes	-	-
40 - 49 minutes	1	2.6
50 - 59 minutes	2	5.3
Total	38	100.0

The majority of the respondents (60.5%; n=23) who had to queue before being attended to by a mobile clinic nurse, waited less than ten minutes. Nearly a quarter (23.7%; n=9) waited ten to 19 minutes, while 7.9% waited 20 to 29 minutes. Only three respondents (7.9%) waited 40 minutes or more in a queue before being attended to. Two respondents indicated that it happened before that they were sent home from a visiting point without having received attention. No explanations for this were given.

If taken into consideration that these respondents are only those who have used the new mobile clinic system before and that in the new system, clients from not only the farm on which the visiting point is, but also clients from other farms in the region use the services on a specific day, waiting time could not be said to be too long. On the contrary, more than half of these respondents waited less than ten minutes at the point for service, which is not long.

7.6.5. Time spent in consultation

All respondents who were asked this question indicate that the time they spent in consultation with the nurses, was less than 20 minutes. Table 67 shows consultation time spent with respondents.

Table 67: Time spent in consultation with a mobile clinic nurse

Consultation time	Number of respondents (n)	Percentage of respondents (%)
4 minutes or less	10	22.2
5 - 9 minutes	19	42.2
10 - 14 minutes	14	31.1
15 - 19 minutes	2	4.5
Total	**45**	**100.0**

All but two (4.5%) of the respondents who used the new mobile clinic system indicated that they spent less than 15 minutes in consultation with a professional nurse. Ten (22.2%) respondents spent four minutes or less in consultation, 19 respondents (42.2%) spent five to nine minutes, and 14 (31.1%) respondents spent ten to 14 minutes. The majority of respondents (86.7%; n=39) were satisfied with the amount of time the nurses spent with them, while 13.3% (n=6) were not satisfied.

The time spent on each patient was on average quite short and the question should be asked how the nurses could assess the history of a client, screen him/her, make a diagnosis and dispense medicine in a time span of 4 minutes or less.

7.6.6. Obstacles in the way of clients regarding mobile clinic attendance

A third (33.3%; n=15) of the respondents indicated that they have to ask the farmer or his wife for permission when they want to attend the mobile visiting point. Six of these respondents (40%) indicated that the farmer or his wife sometimes complains when they want to visit the mobile visiting point. Reasons for these complaints included; the respondents are workers on the farm and are therefore wasting production time when they attend the mobile clinic (n=5); and one respondent was a pensioner and the farmer did not regard the respondent as his responsibility, and therefore refused to take him/her to the mobile visiting point.

Nearly half of the respondents (46.7%; n=21) indicated that weather conditions sometimes prevented them from going to the mobile visiting points. Weather conditions which prevented respondents from going to the points, included rain (95.2%; n=20) and severe heat (4.8%; n=1).

7.6.7. Client attitudes regarding the attendance of mobile clinics

The majority of respondents (86.7%; n=39) indicated that they enjoyed visiting the mobile visiting points. Reasons for this are depicted in Table 68.

Table 68: Reasons why respondents enjoy attending the mobile visiting points

Reason	Number of responses (n)	Percentage of responses (%)
They bring services to our farm which is convenient	11	26.8
Their treatment is good	6	14.6
They solve our health problems	5	12.2
It is the nearest service to us	3	7.4
The mobile clinic prevents me from falling pregnant	3	7.4
They have all the medication I need	3	7.4
They provide us with health information	2	4.9
They explain thoroughly what is wrong with us	2	4.9
They come every month, which is convenient	1	2.4
The nurses are very helpful	1	2.4
The nurses give me moral support as well	1	2.4
The service is free	1	2.4
The nurses treat us politely	1	2.4
Irrelevant answer	1	2.4
Total	41	100.0

A wide variety of answers were given why respondents enjoyed visiting a mobile point. More than a quarter (26.8%; n=11) appreciated the fact that the mobile clinics brought the services to the farms.

The six respondents who indicated that they did not enjoy visiting the mobile visiting points; gave the following reasons for their answer:

- The nurses are rude to us (n=2).
- The nurses do not solve our health problems (n=1).
- The nurses always dispense the same medicine, even though they see it does not help (n=1).
- They do not come to this farm anymore, we have to travel far to attend the mobile clinic now (n=1).
- I do not trust the free medication they give us (n=1).

From this data it could be derived that the users of the mobile clinic service appreciated and valued this service, since the majority of respondents who were using the services indicated that they enjoyed visiting the mobile clinics.

8. Main findings and discussion

8.1. Biographic, demographic and socio-economic related indicators of the study and household population at hand

With regard to biographic, demographic and socio-economic related information, the data that follows, summarises the main findings of the survey among the sample of rural dwellers.

The vast majority of respondents (97.3%) in this survey grew up in a rural area. More than half (61.3%) of them worked for payment during the past twelve months, 87% of them full time and 13%, part time. The average income of these employed rural dwellers was R296.63 per month (80% earned less than R300.00 per month). When the fact that 82.2% of these workers

worked eight hours or more every weekday is taken into account, employed rural dwellers underpaid and are among the poorest of the poor.

There were a total of 782 people in the 150 households from which the direct respondents in this survey were sampled. The average (mean) household size for this study population was 5.2 members per household, which is more than the average for the Free State (4.1) and nationally (4.4) for 1996 (*South African Health Review*, 1999: 399). This was higher than the national average for African households alone in this country, which was 4.7 in 1995 (All the respondents in this part of the study were Africans living in African households) (*South African Health Review*, 1997: 239). The mean age of household members and respondents was 26.3 years, which renders this study population a young one, with the largest proportion of people resorting under the 10 to 19 years age category (27.1% of household members). Seventy percent of the households lived in houses with four or less rooms. A very small part of the study population (4.5%) at hand (respondents and their households) completed their school education. Only more than a third (37.4%) completed primary school. A total of 62.5% therefore had not completed primary school and could be classified as illiterate (people aged 20 and more with no schooling or with some primary schooling are illiterate). This compares well with the literacy rate for the Free State (62.7%) and the national percentage of people that were illiterate in 1996 (65.8%) (*South African Health Review*, 1999: 400).

Although the majority of the households had access to piped water (not in their homes but a tap outdoors that they shared with other households), 32% indicated that their households did not have access to any kind of sanitary facilities (toilets) at all, and members had to use bushes surrounding their dwelling for this purpose. This is much higher for the household population at hand than the average of the Free State (8.8% not having access to a toilet) and the national average (12.5%) for 1996 (*South African Health Review*, 1999: 400). Nearly two thirds (66%) of the households had access to a pit toilet. More than three quarters (78.7%) did not have a bath or basin for personal hygiene.

The staple food of the Bothaville rural community was maize porridge (a mean of 146.3 of the 150 households had this as staple in all their meals). This could well be the cause of malnutrition in the area as the nutritional value of maize porridge is very low. This can be attributed to two main factors, firstly, the extensive cooking periods which have a destructive influence on vitamins present in the porridge and secondly, it is seemingly not balanced with enough of the other food groups.

From these findings it could only be concluded that the rural population of the Bothaville magisterial district were in general very poor and the majority of them were living under precarious circumstances. Friedman (1999: 1-3) argued that poverty is a violation of human rights, and that poverty is the most common and serious human rights violation in this country, with 44% of the South African population estimated to be poor. The inability to maintain a minimum standard of living deprives people of their dignity and access to the means to remain healthy, this should be kept in mind when considering the morbidity an mortality profiles of this study population. He further argued that good health has certain prerequisites, which include water, food, shelter, education, work, peace, social justice and equity. Add to this how little the employed rural dwellers in this study are paid in a month and their access to sanitary arrangements, and one is left with a very dark picture for this study population indeed. In the light

of the above findings one cannot conclude that the rural dwellers in Bothaville are sufficiently equipped with what they need to lead a dignified life.

With regard to morbidity, mortality, births and family planning, the main findings to this study consisted of the following: the percentage of the household study population suffering from a reported chronic disease was 11.6%, of which those suffering from high blood pressure (hypertension) comprised the largest group (4.5% of the entire household population). This was found to be much lower than the rate for the Free State (13.9%) and the national rate (12.1%) for 1998. The TB incidence rate for the household sample was, when converted to per 100 000 of the population, 1023:100 000. This is very much higher than that of the Free State (245:100 000) and the national rate (169:100 000) for 1998 (*South African Health Review*, 1999: 401). The most prevalent ailment experienced by 28.5% of households was flu in winter, while headaches ranked second (23% of households).

A total of 1.7% of the household population were physically disabled, of whom the majority were either crippled (46.2%) or blind (30.8%). This is only slightly higher than the average percentage of physical disability for the Free State (1.6%) and higher, as well, than the national percentage (1.4%) in 1996. Only 0.8% of the household population were mentally disabled (three quarters of them were reportedly retarded). This is much lower than the prevalence of mental illness for the Free State (5.4%) and higher than the national prevalence (0.5%) in 1996 (*South African Health Review*, 1999: 402).

A total of 15 babies were born among the 59 women respondents of child bearing age (18 – 47) during the past two years, of whom five were delivered at home by a family member, neighbour or friend and ten in a hospital by a professional nurse. In seven of the 150 households a teenager gave birth to a baby. Only one baby in the age category one to five years died during the past two years and one termination of pregnancy was reported. With regard to family planning, nearly two thirds (62%) of all 150 respondents did not use any form of contraception and only 15.3% used condoms. This data could be interpreted in a number of ways. When kept in mind that nearly three quarters of respondents had only one sexual partner during the past year, the fact that only 15.3% of them use condoms is not too much of a problem, assuming among them are the 8.7% of respondents who had more than one sexual partner during the past year. The fact that 62% of the population do not use any contraceptive methods at all, could definitely be perceived to be a problem, because a high birth rate could be the result of this. It should be kept in mind, though, that half of the study population are males, who usually do not use any contraceptives, especially when married or living together (more than two third of the study population falls in this category). The women are usually the one to use contraceptives.

Concerning mortality, seven people from the 150 households died during the past two years. If it is assumed that this number could be halved to get the picture for one year, 3.5 died during a one year period. This way, the crude death rate for the household population could be calculated (the crude death rate of a population is the number of deaths in a year per 1000 population). This leaves a crude death rate of 4.5 per 1000 of the population for this household population, which is lower than the national crude death rate for the African population in 1994 (which was 10.2). (*South African Health Review*, 1999: 405).

Knowledge and behaviour indicators of health included as part of the data gathering instruments, were blood pressure screening and dental health, and risk taking behaviour indicators included tobacco use, alcohol use and sexual behaviour (which is linked with

knowledge about HIV/AIDS). Less than a third of respondents had their blood pressure taken during the past year. When taken into account that only 4.5% of this household population was suffering from (and therefore diagnosed with) high blood pressure compared to the incidence for the Free State of 15%, people could be in danger of suffering from this ailment without realising it and, therefore, this study population could be in danger of being underdiagnosed with regard to hypertension. Slightly more than a quarter of respondents had problems with their mouth or gums (oral problems), of whom only around two thirds (62.2%) indicated that they sought treatment for this problem. The fact that more than a third of respondents (37.8%) did not seek treatment for their oral problems could well be a result of the dire scarcity of oral health services in the public health system and the fact that most of them could probably not afford private dental services.

Slightly less than half (43%, of whom 78.5% were male and 21.5% female) of respondents in the study population smoked. Since all the respondents were adults (20 years and older), this percentage can be compared to that of the Free State and South Africa for adult smokers. When broken down in terms of gender, 34% of adult male respondents smoked, this percentage is lower than that of the Free State (44%) and the national percentage (42%) for 1998, as was the case for the females with 9.3% of them having smoked, which was lower than the Free State and national percentage of 11% respectively for 1998 (*South African Health Review*, 1999: 402). A further 26.7% of respondents indicated that they snuffed.

Nearly half (46.7%) of the respondents indicated that they drank an alcoholic beverage of some sort. A substantially larger percentage of males (74.3%) drank alcohol than females (25.7%). Most of them (94.3%) indicated that they only used alcohol during weekends, occasionally or at the end of a month.

As has been mentioned, sexual behaviour was used as an indicator of risk taking behaviour because of the causal relationship between permissive sexual behaviour and HIV/AIDS. It was found that the majority of respondents (69.3%) had only one sexual partner during the past twelve months, while 20.7% indicated that they had not been sexually active during this time. These two categories together (90%) could be seen as a low-risk group if assumed that their partners are relatively faithful. The high-risk group is represented by the 8.7% of respondents who reported to have more than one sexual partner during the past year. In general, it could be concluded that a small percentage of the study population have exposed themselves to permissive behaviour during the past twelve months and therefore this study population rank relatively low on risk with regard to this indicator of risk taking behaviour.

8.2. Trends, perceptions and opinions of respondents

As far as the health seeking behaviour of the study population was concerned, 20.6% of respondents indicated that they preferred to treat themselves when not seriously ill. Nearly a fifth (18.6%) indicated that they preferred to go to a fixed clinic first when not seriously ill, 14.7% to a mobile clinic, 14% to a family member and 13.3% to the farmer or his wife. It is clear that this population have a wide variety of preferences when it comes to health seeking behaviour when they are not seriously ill, with no specific group forming a very substantial majority (20.6% being the highest and 13.3% the lowest).

The picture looked very different when respondents were asked about their health seeking behaviour in cases of serious illness, with nearly three quarters (72%) of respondents having indicated that they preferred going to a doctor when they were seriously ill. This is a clear indication of the trust that most people in this study population have with regard to the services of general practitioners and unfortunately also an indication of the lack of trust that they have in the abilities of PHC nurses to deal with serious conditions, or at least make a timely referral to a higher level of care. Only 8.7% indicated that they preferred going to a fixed clinic and a mere 3.3% of them indicated that they preferred to attend a mobile clinic when they were seriously ill.

When respondents were asked to make a choice between mobile and fixed clinic services, nearly half of them (46.6%) preferred the mobile clinic, while 28% preferred the fixed clinic. The most prominent reasons why they preferred the mobile clinic, were because it saved time and money and it brought the services closer to the farms (86.8%). Those respondents who preferred the fixed clinic did so because they felt that it provided better services and medicine (30.3%) and that the mobile clinic did not visit their farms anymore or that it stopped too far away from them (21.4%). These two reasons account for the perceptions of nearly 15% of this study population. This is a very important finding because it provides the researcher with a clear indication of at least two areas in which mobile clinic services could be improved upon to render a more accessible service to its clientele (by improving their services and for instance stopping closer to all the farms). These findings are a good example of research findings that could be translated into outcome-oriented action to make a difference in the lives of the clients of the services.

When looking at the results of the section on traditional health care, it was found that not far from half of the study population (44%) believed that traditional health care still had a definite place in modern society. All the respondents who believed this had consulted a traditional healer during some stage of their lives and the majority of them (81.8%) indicated that the treatment was successful. Nearly all of them went to either a faith healer (35%), a sangoma (32%) or a herbalist (31%). From this data it was clear that the practice of using traditional health care was still alive and well in this area. It is interesting to note in this regard, though, that only one respondent of the 150 indicated that a traditional (faith) healer was a first choice in cases of less serious and serious ailments. So, although 44% of respondents believed that traditional health care still had a place in modern society, it was by no means their first choice of health care.

The most important findings with regard to the evaluation of the mobile clinic services, were the following: more than half of the respondents (58.7%) indicated that they had never attended a mobile clinic on a farm before. This should be regarded as one of the most important findings of the study because the mobile clinic services are provided by the Department of Health for the exclusive reason of making PHC as accessible as possible to rural dwellers. It is therefore really disturbing to find that this high percentage of the potential clientele have never made use of these services. Even more disturbing in this regard, is the fact that more than a quarter (27%) of those who had never made use of a mobile before, indicated the reason for that to be that they had never or seldom seen the mobile clinics on the farms. This raises serious questions with regard to the effectiveness and accessibility of these services on the farms in this district. Further more, it is important to note that more than half (51.3%) of the respondents indicated that they were not aware that the mobile system had changed in the area (from a system where the mobiles visited every farm in the district once every two or three months to a system where the mobiles visited only certain farms or points on a monthly basis). This is worrying because the

new system had already been implemented for at least five to six months at the time of the survey. This is a clear indication of the fact that information about the change in the system was not well enough disseminated. Only a third of the respondents had visited a mobile clinic since the implementation of the new system. One might derive from this that rural dwellers do not make use of the mobile clinic services very often, or that some confusion exists with regard to the new system.

Most of those respondents who were aware of the new system had been informed either by the farmer or his wife (36.9%), found out from the mobile clinic personnel (32.6%) or were told by a teacher or scholars at a nearby farm school (19.6%). From this it is clear that no formalised strategy was used to disseminate information concerning the implementation of the new system and this could be one of the reasons why more than half of the participants in this survey did not know about the change in the system.

Information dissemination with regard to the new system was further evaluated by asking those respondents who knew about the new system, if they always know when the mobile clinics will stop at the point nearest to them. Only 60% of them indicated that they always know these dates. A further question pertained to the means of information dissemination with regard to the next date on which a point would be visited. In response to this question, it also turned out that no apparent formal structure or means of informing users was used by health personnel working on the mobile clinics. One gets the feeling that they informed persons whom they perceived as key information disseminators and further relied on word of mouth to get the message around. These are further important indicators of a lacking information dissemination system on the farms, which could have a very negative influence on the accessibility of the services. It should again be kept in mind as one of the reasons why mobile clinic services in this area are poorly utilised.

Of those respondents who made use of a mobile clinic since the implementation of the new system, the vast majority (80%) indicated that they visited the mobile clinic once every month. The rest (20%) indicated that they visited the mobiles every two (11.1%), three (6.7%) or four (2.2%) months. Nearly two thirds of these respondents indicated that they made use of the old mobile clinic system every two to three months, which is probably because it was only available that often. A fifth (20%) of these respondents, however, indicated that they made use of the old system every month to six weeks when the old system was still in place. This data is improbable because the mobiles did not visit any point that regularly. Therefore, it should again be concluded that there still is substantial confusion with regard to the difference between the old and new mobile clinic systems within the Bothaville rural community, and that information dissemination to the clientele of the service should receive substantial attention.

Perceptions of respondents with regard to the advantages and disadvantages of the old and new systems were explored and it turned out that 43.7% of them indicated that they had no problem with the previous system. Most important disadvantages of the old systems were indicated to be that farms were not visited often enough (22.9%), and 10.4% indicated that no one ever knew when the mobile clinics will visit the farm on which they resided then. When asked what the advantages were, more than a third (35.6%) indicated that there were no advantages and an ironic 28.9% felt that the two systems were the same.

An evaluation of perceived accessibility and user-friendliness of the new mobile clinic system provided the following information: more than three quarters (77.8%) of those respondents who

had visited the mobile clinics since the implementation of the new system, indicated that they were treated well by the staff. Among the reasons why 11.1% of respondents felt that they were not treated well while attending the mobile services, were that the nurses shouted at them; they were treated like animals; the nurses worked roughly with them; the nurses did not listen to them; the nurses did not want to dispense the needed medicine to them; and they were not satisfied with the examination they received. Although 11.1% is not a large percentage of all the respondents who attended mobile clinic services, this data is very important because of the reasons why some of them felt that they were not treated well. These reasons are indicators of serious mistreatment by nurses, which is absolutely unacceptable in the client-oriented system this mobile clinic service is supposed to be.

The vast majority (84.4%) of the respondents included here further indicated that the nurses were friendly. Those who indicated that they were unfriendly (13.3%) gave much the same reasons as the above. The reasons included that the nurses were rude, they did not listen to what is wrong and they did not examine them thoroughly. The vast majority indicated that they were satisfied (84.4%) with the services they received at the mobiles while the 15.6% who were dissatisfied complained that the medicine they received was not effective, consultation times were too short, the mobile clinic nurses could not solve their health problems and the nurses were rude. In the negative responses to both these questions, elements of mistreatment could be detected as was the case in the previous discussion, as well as an array of other indicators that could be used to improve on the services delivered to rural dwellers.

It is apparent from the data concerning client satisfaction that the vast majority of users of mobile clinic services were generally satisfied with the services they received, because they were treated well, the nurses were generally friendly, they were satisfied with the health care received there and satisfied with their examinations, explanations concerning what was wrong with them, treatment for their ailments, medication they received and advice on the prevention of illness. In the previous discussion of this data, it could seem that the writer of this report focuses too heavily on negative findings in this section and not enough on the positive. This is true because, although it is very heartening to see that the vast majority of respondents have no complaints with regard to the mobile clinic services, those who have complaints are more important for the purpose of this study. An important aim of this study was to provide information that could be translated into action that will improve services rendered to clients. The negative responses are therefore providing indicators from which services could be improved upon.

Nearly a third of the respondents further indicated that they did not receive any health information while attending the mobile clinics. This is worrying because health education and prevention are important components of PHC and this should definitely receive attention in order to be improved upon. More than half (54.5%) of the respondents included here further indicated that they relied on the farmer or his wife to transport them to a mobile visiting point if there is no point situated on the farm where they resided. This means that the farm owners and their wives in the area play an important role in assisting rural dwellers to use the mobile services.

As far as the waiting time for service at a mobile visiting point is concerned, the vast majority of respondents indicated that they waited in a queue before being attended to. However, the majority of respondents (60.5%) indicated that they waited for less than ten minutes before being attended to. Not even a fifth (15.8%) of respondents waited twenty minutes or more. If taken into consideration that not only clients residing on the farms where the visiting point is situated, but

also clients from other farms, use the service on the specific day, the waiting time was relatively short. One would expect the waiting time to be much longer than it was indicated to be by the respondents, because numerous patients ought to be seen at every point.

Nearly two thirds of respondents (64.4%) spent less than ten minutes in consultation with the professional nurse, 22.2% of whom spent less than 5 minutes. This is very short and one has to wonder how the nurses could assess the history of a client, screen and examine him/her, make a diagnosis and dispense medicine in such a short time. Although this consultation time seems short on average to the researcher, the vast majority (86.7%) of respondents indicated that they were satisfied with the amount of time spent on them by the nurses.

A third of the respondents indicated that they had to ask the permission of the farmer or his wife before they could attend the mobile clinics. This presumably includes some of the employed group of the participants. Of these, 40% indicated that the farmer or his wife sometimes complained when they wanted to visit the service. Reasons for this was that production time on the farm was wasted when services were visited and that the farmer or his wife did not want to take participants to the point. A further 46.7% indicated that severe weather conditions like rain and heat sometimes prevented them from visiting the points. This is quite understandable seeing that a lot of these patients walked to the points.

After client satisfaction and accessibility of the mobile clinic services were tested in numerous ways and with numerous questions, those respondents who have visited the new mobile system before were simply asked whether they enjoyed attending the services. The vast majority (86.7%) of them responded positively to this question. The most prominent reason for enjoying it was that they appreciated the fact that the mobile clinics brought services to the farms. The response to this final question gives a very definite indication that mobile services are appreciated by those who use them and that all the money and effort invested in bringing PHC to people on farms, is definitely appreciated by most of the users thereof.

Chapter 5

RESULTS OF THE INTERVIEWS CONDUCTED AMONG FARM SCHOOL TEACHERS

1. Introduction

There are 75 farm schools in the Bothaville district, 73 of which are primary schools and the remaining two, secondary schools. Convenience sampling was done to select eight farm schools, seven primary and one secondary school, for inclusion in the study. There is only one secondary school in the Bothaville rural area (the other one being in the Kgotsong township near Bothaville).

Eight structured group interviews were conducted with teachers at the selected farm schools, the purpose of this being to obtain information on health care delivery to learners attending the schools. The main reason why interviews were conducted with teachers and not with learners, was that learners might be too young to be included in the study as respondents, especially primary school learners. A total of 30 teachers were included in the eight group interviews, ranging from two to six teachers per school. The number of teachers interviewed per group depended on the availability of teachers at the time of our visit to the schools. A mean of 3.6 teachers were included in every group interview. It was decided to conduct group interviews and not individual interviews for the principal reasons that when more than one teacher was interviewed at a time it was possible for them to verify one another's answers, because they might have different experiences and since they were not interviewed with regard to a matter that concern only themselves directly (it concerns the learners as well), group interviews rendered the qualitative data captured in this manner, more generalisable.

Pupil numbers ranged from as few as 14 to as many as 182 children per school. The secondary school had the largest number of learners, with 182 learners being enrolled there. This could be ascribed to the fact that this secondary school is the only one in the Bothaville rural area.

In order to ensure anonymity, the names of the farm schools will not be mentioned, neither will the names of the farms on which the schools are located. The geographical distribution of the eight farm schools is depicted in Map 3: Geographical distribution of farm school sample in Bothaville.

The most important topics discussed in this chapter include: the health facilities available to the learners attending farm schools; the mobile clinic services in terms of the previous and new systems; the availability and accessibility thereof; the range of services rendered by these clinics; shortcomings and constraints of the mobile clinic services; and the nature and status of cooperation between schools and mobile clinics.

Table 69 depicts the number of teachers included in group interviews, number of learners enrolled in the selected schools and the town nearest to the school, location to the nearest fixed clinic and the distance from that point.

Table 69: Number of teachers included in group interviews, number of learners enrolled in each school, nearest town and distance to nearest fixed clinic in kilometres.

School number	Number of teachers included (n)	Number of learners (n)	Nearest town	Distance to nearest fixed clinic (km)**
School 1	2	22	Orkney	18
School 2	2	84	Bothaville	17
School 3	5	120	Orkney	28
School 4	4	69	Bothaville	26
School 5*	9	182	Bothaville	28
School 6	2	30	Bothaville	21
School 7	4	120	Orkney	28
School 8	2	14	Bothaville	9

*The secondary school, all the others are primary schools.
**Distances as estimated by teachers.

As can be derived from Table 69, the schools were located between nine and 28 kilometres from the nearest fixed clinic. The nearest fixed clinic, to the majority of schools, was in Bothaville (n=5) while the remaining three schools were nearer to Orkney. According to the referral system, all learners and school teachers were expected to use the Bothaville and Kgotsong health care facilities, since all the schools were located within the Bothaville magisterial district.

Please keep in mind that most of the data that follows includes the number of **responses** given by the entire group interviewed at every school.

2. Health problems

The most prevalent health problems in the selected schools are depicted in Table 70.

Table 70: Most prevalent health problems experienced by farm school learners

Health problem	Number of schools (n)
Flu in winter	4
Tuberculosis	3
Stomach ailments	3
Skin problems associated with puberty	2
Eye sight problems	1
Malnutrition	1
Hearing problems	1
Nausea	1
Headaches	1

As can be seen in Table 70, flu, especially in winter, was the most prevalent health problem experienced by the learners, as teachers of four out of the eight schools indicated this to be so. Stomach ailments (n=3) and TB (n=3) ranked second, while skin problems, associated with puberty, (n=2) ranked third. Learners in the secondary school specifically suffered mostly from headaches, nausea and stomach ailments.

3. Services rendered and neglected by mobile clinics

The services rendered most frequently to learners, are depicted in Table 71.

Table 71: Most frequently rendered mobile clinic services to farm schools

Service	Number of schools (n)
Treatment of minor ailments	7
Immunisation	5
Family planning	5
Health education	3
Promotion of vegetable gardens	1

Teachers from seven of the eight schools stated that the most frequently rendered health service to farm schools was the treatment of minor ailments. Immunisation and family planning ranked high as well, with five out of eight schools indicating that these services are often delivered there. Notable about the prevalence of family planning services, is that four of the five schools which indicated that this was a frequently rendered service, were primary schools. This could be an indication that children are becoming sexually active at a very early age, since the average age of children at these four primary schools was indicated to be around 12 years of age.

Teachers were also asked to identify shortcomings in mobile clinic service composition. Table 72 depicts their views on this matter.

Table 72: Shortcomings in service delivery composition of mobile clinics

Service needed and not offered	Number of schools (n)
Health education	3
Eye care	1
Dental care	1
Mental counselling	1
Blood testing	1
Follow-up screening of learners who previously received care	1
Home visits to ill learners	1

An additional service needed at three of the schools was that of health education. This is interesting when compared to Table 71, since three of the schools there indicated that adequate

health education was provided. One would expect the mobile clinics to provide the same services to all the farm schools.

Other services needed were eye care (n=1), dental care (n=1), mental counselling (n=1), blood testing (n=1), follow-up screening of learners who received care on a previous visit (n=1) and home visits to ill learners (n=1).

The main deficiencies in the delivery of health care to learners at farm schools included:

- Not enough or no health education is provided by mobile clinics (n=3).
- The mobile clinic does not stop at the school anymore (n=1).
- Dental and eye care services, as well as mental counselling is needed at the school (n=1).
- The mobile clinics are not adequately equipped (n=1).
- Mobile clinics should provide schools with first-aid medical equipment (n=1).
- No proper follow-up screening is done by mobile clinic personnel (n=1).
- No home visits are being done by mobile clinic personnel (n=1).

Teachers at three of the schools indicated that they did not experience any deficiencies with the delivery of health care to the learners at the schools where they were employed.

4. Health seeking behaviour

Part of the interview dealt with the route of health seeking behaviour followed when a child fell ill at school. Teachers at four of the schools indicated that, in less serious cases, the school has some facilities to treat learners there. One of these four groups indicated having a clinic at the school, where they could treat the children. One of the groups indicated sending the children home without any intervention from their side.

In **more serious cases**, two of the groups took the learners to a health facility, with a teachers' vehicle and the parents refunded the school at a later stage. One of the schools hired transport to a health facility and the parents also refunded the school at a later stage. Another two groups indicated that they sought the assistance of the farmer where the school was situated - one school indicated that the farmer then decided what to do about the ill child and the other indicated that the farmer transported the child to a health facility, in which case he was also refunded by the parents at a later stage.

When asked how **frequently a child fell ill at school**, only one school's respondents indicated that it happened very often, while three school's respondents indicated that it did not happen often and the remaining four groups indicated that it only happened sometimes.

In **cases of emergency**, two groups indicated that they phoned an ambulance, which took the child to the nearest hospital (one of which is in Klerksdorp and the other in Bothaville), two other groups indicated that they took the child to the doctor in one of the teacher's vehicles (which the parents later refund them for), another two indicated that they went to the farmer for help. The farmer took the child to doctor and was later refunded by the parents. One of the groups indicated that they hired transport to take a child into town, which was also refunded by the parents and the last school indicated that they took the child home in cases of an emergency.

Five groups indicated that emergencies did not often happen during school hours, while the remaining three groups indicated that it only happened sometimes.

The group interviews also revealed that the majority of farmers or their wives (five out of the eight), on whose farms the schools were situated, played a role in the health care of learners at these schools. Four of these five groups indicated that the farmer/his wife assisted with the health care of learners by transporting children to a health facility (whether it is to a mobile visiting point, if there is none on the farm, or to the doctor or hospital in more serious cases), while a further two of these five indicated that the farmer's wife provided them with some medicine for the school children. Three of the groups indicated not receiving any assistance from the farmer/his wife on whose farm the school was situated.

Of the three groups that indicated that the farmer/his wife did not play a role in the health care of the learners, two indicated that it would be helpful to receive assistance. One of these groups indicated that the farmer/his wife could provide them with a first-aid kit and they should also visit the school from time to time to assess general progress made at the school. The second school wanted the farmer/his wife to help with transport to a health facility in cases of emergency, and they felt that the farmer should provide the school with piped water. The third school felt that the farmer could not play a role, since he/she never showed any interest concerning the activities at the school.

5. Assessing the new mobile clinic system

Of the eight schools assessed in this study, six indicated knowing about the change in the mobile clinic system. The means of informing these schools about the change included that the nurses informed the farm manager by phone and he/she in turn informed the schools (n=2), the nurses themselves went to the schools and told the teachers about the change (n=2) and the nurses wrote a letter to inform the school (n=1). The sixth school indicated not having been informed officially, but heard it through secondary sources. Four of the eight groups indicated that they knew why the system changed, the reason being that it had changed to cut costs by travelling to fewer points. It is again apparent from this data that the personnel operating the mobile clinics, who implemented the new system, did not adequately plan information dissemination regarding the change in the delivery system.

During the group interviews, the main shortcomings of the previous system were explored. These shortcomings included the following:

- They often did not come according to the time table provided to the school (n=4).
- They did not visit the school regularly enough (n=3).
- They did not treat everyone when they visited because of time constraints (n=2).
- They arrived too early during school hours (n=1).

Two of the groups indicated that there were no shortcomings with the previous system.

When asked whether the new system functioned better or worse than the previous system, three of the groups indicated that it functioned better, another three indicated that it functioned worse and two indicated that they were uncertain.

Reasons given why the new system functioned better, included:

- They visit the school more regularly (n=2).
- The mobile brings the services to the school (n=1).
- They always know the exact date when the mobiles will arrive (n=1).

Reasons for feeling that the new system functioned worse, included:

- They have problems transporting learners to the nearest visiting point (n=2).
- Nothing has improved regarding the supply of medicines offered by the mobiles (n=1).

The two school groups that indicated being uncertain, would not give reasons why.

6. Access to mobile health care

Five of the groups indicated that the learners had access to mobile health services once every two months. A further school indicated that these services were available once every three months, one every two months and the last, once every six months. All the groups (n=5) who indicated that the mobile service visited them monthly, also indicated that they knew about the change in the system. The two groups that indicated not knowing about the change, apparently received services concurrently every three and six months.

Six of the groups indicated that there is a mobile visiting point on the farm where the school is situated. Two of these, however, were not informed about the change in the mobile system and were therefore confused about whether they had a visiting point. This is verified by the fact that one of them indicated last receiving services three months ago and the other, six months ago. The responses of these two groups will not be included in the section dealing with schools with mobile visiting points, since this could have a confounding influence on the data. Two of the groups in the sample indicated that they did not have a mobile visiting point on the farm.

The four schools with mobile visiting points indicated that the mobile clinics spend 30 minutes (n=1), two to three hours (n=2) and four hours (n=1) respectively at the schools. All four of the groups indicated that they were aware of the dates that the mobile clinics would arrive at the school and that they always arrived according to the time schedule. When asked how they are notified when changes are made in the time schedule, one of the groups indicated that the mobile clinic came a day earlier than scheduled and that they were not notified about it beforehand. One school indicated that when there was a change in the mobile schedule, the nurses phoned the principal of the school. Another indicated that some of the teachers meet with the nurses from time to time, and at such meetings they are notified of changes in the schedule. The other school indicated that there were never any changes in the schedule. All four groups indicated that they always allowed their learners to attend the mobile when it arrived at the school.

Of the two groups that indicated not having a mobile visiting point, one was five kilometres and one six kilometres from the nearest mobile visiting point. One of the groups indicated that they took the children to the visiting point with a private vehicle, while the other school indicated struggling with transport and that it was the parents' responsibility to arrange transport with the farmer to the visiting point. In both cases, only the children in need of care are taken to the mobile visiting point because of the above mentioned transportation difficulties. Both groups indicated that they were always aware of the dates when the mobile clinic went to the visiting point and the mobile clinic always arrived on these dates. When changes were made in the schedule of the mobile clinic, one of the groups indicated that the nurses phoned the farmer, who informed them about the change and the other indicated that the schedule had not changed since the new system was implemented.

7. Shortcomings of the new mobile visiting point system

The four teacher groups with mobile visiting points indicated that the main shortcomings of the new mobile visiting point system were:

- That people at other schools have problems with transport to mobile visiting points if there are no points on their farm or at their school (n=2).
- Rain and other extreme weather conditions also make reaching visiting points difficult for people on farms with no visiting points (n=1).

One of the groups with a visiting point indicated that shortcomings had not yet been identified since the new system had only recently been implemented and another school with a visiting point indicated not having experienced any shortcomings.

The two schools without mobile visiting points indicated that they had serious problems transporting learners to the nearest visiting point, as it was too far away.

When asked how these shortcomings could be overcome, the school with a visiting point that stated that people on farms schools without visiting points have problems with the distance and extreme weather conditions, indicated that a fixed clinic should be built on a central farm and that transport should be provided to farms without points. The second school, which indicated that people on farms without visiting points have transport problems, indicated that farmers could work together to transport people to visiting points. Of the other two farms without visiting points, one indicated not experiencing any problems, as has been indicated and the other indicated not being sure, since the system was recently implemented.

The two teacher groups that did not have mobile visiting points on their farms, both indicated transport problems to be the main constraints experienced with the new system. One stated that the solution to this would be to provide transport for all people on farms without visiting points. The second school indicated that the old mobile clinic system should be re-implemented.

8. The ideal rural health care system

Group interview responses for all eight schools are included from this point again. Teacher groups were asked to describe the ideal health care system for schools in rural areas. Important elements of an ideal rural health care system were:

- Community health centres or fixed clinics, with doctors, should be established in the rural areas (n=2).
- A health worker should be appointed at every farm school, to provide teachers and children with health education and to see to their health care needs (n=2).
- The mobile clinic system would work better if they visited each school and not only certain schools or points, as it worked with the old system (n=2).
- More ambulance services are needed in the rural areas of Bothaville (n=2).
- Basic medication (e.g. headache tablets, antiseptic ointment, etc.) should be supplied to schools for first aid dispensing (n=1).
- It is important for parents to be present when a child is in consultation with the clinic nurse, the new point system does not allow this because of transport problems (n=1).
- A better transport system needs to be established for people living in rural areas (n=1).

The two groups that were still uncertain about the new system, further indicated that the mobile clinics should be working on specific time tables and that they should stick to it.

9. Assessment of mobile clinic services in general

Table 73 depicts matters in which health education is not being delivered.

Table 73: Health education being provided by mobile clinics at different schools

Component of health education	Number of schools receiving information (n)	Number of schools not receiving information (n)
Family planning	7	1
General health	2	6
Personal hygiene	2	6
STDs and HIV/AIDS	2	6

As can be derived from Table 73, the learners at the majority of schools (seven out of the eight) did receive information concerning family planning. Six out of the eight groups indicated not having received any information on general health, personal hygiene, STDs, HIV and AIDS. Other shortcomings in health education provided by mobile clinics, were indicated by five groups to be the following:

- Sexual education (n=2).
- Nutritional education (n=1).
- Education on new diseases and how they could be prevented and cured (n=1).
- Education on rape and how to handle a rape situation (n=1).

Three of the groups did not identify any additional areas of health education that was needed.

When asked whether the services supplied by mobile clinics are adequate to meet the needs of learners at farm schools, half of the groups indicated that the services are adequate while the other half indicated it to be inadequate.

The four groups that indicated that the services were adequate, provided the following reasons for their answer:

- All the treatment that is needed, is provided by them (n=3).
- The services are adequate and if the mobile cannot treat a child, they refer the child to the doctor (1).

The four groups which indicated that the services were not adequate, provided the following reasons for their answer:

- They do not meet all the needs of the community or learners. Needs should be assessed more thoroughly and the service should be adapted accordingly (n=1).
- Nurses do not give enough attention to privacy of patients and this affects the quality of the services delivered (n=1).
- Medication does not meet the needs of the community or learners. They only provide medicine for flu and other minor ailments (n=1).
- Nurses do not spend enough time with the learners, they are always in a hurry (n=1).

- Nurses do not change the treatment if it does not work (n=1).
- Nurses do not explain the reasons for ailments (n=1).

Seven out of the eight groups indicated that the teachers at the school also provided the learners with health education. It is provided in the form of health education as a subject. The school not providing health education was the secondary school, as the subject was only included in the syllabus of primary schools.

10. Relationship between learners and mobile clinic personnel

The majority of the groups indicated that the learners at their schools had a very good (n=1) or good (n=4) relationship with the mobile clinic personnel. Two groups indicated that this relationship was average. Only one group indicated their learners had a poor relationship with the nurses.

The groups which indicated that their learners had a very good/ good relationship with the health personnel, provided the following reasons for believing so:

- The learners are always happy after visiting the mobile clinics (n=2).
- No complaints have ever been received from learners or mobile clinic personnel about the conduct of either (n=1).
- The children say that the clinic personnel examine and treat them thoroughly (n=1).
- The clinic personnel treat the children politely and friendly (n=1).

The two groups which indicated that their learners had an average relationship with the personnel of the mobile clinic personnel, provided the following reasons for this:

- There is a language problem, clinic personnel sometimes struggle to explain the nature of health problems to the children (n=1).
- Some of the children are hesitant to visit the mobile clinics, they don't always feel comfortable to do so, especially the girls (n=1).

The group that indicated that there was a poor relationship between the learners and clinic personnel, stated that the reason for this was that the clinic personnel were rude to the children and did not treat them politely.

Only two groups suggested ways to improve the relationship between the learners and the clinic personnel. The first suggestion which came from the group that indicated that there was an average relationship between learners and the clinic personnel, was that the clinic personnel should learn Sesotho to improve communication. The second suggestion from the group that indicated that there was a poor relationship between the two groups, was that the clinic personnel should improve their communication skills and that they should not be rude to the children.

11. Relationship between teachers and mobile clinic personnel

There was a good (n=5) to very good (n=3) relationship between the teachers at the schools, and the mobile clinic personnel. Reasons for the positive relationship between teachers and mobile clinic personnel were given to be the following:

- There is very good communication between the mobile clinic personnel and us (n=3).

- They always provide us with what we need (n=2).
- We have never experienced any problems with them (n=2).
- They are always willing to make changes when we have problems with some aspect of their system (n=1).

Only three of the eight groups made suggestions as how to improve cooperation between the school and the mobile clinic. These included:

- That the mobile clinic personnel should supply the school with a first-aid kit (n=1).
- Communication between the school and the clinic nurses should be improved (n=1).
- Mobile clinic personnel should take the initiative to educate the teachers in ways to improve the general health condition at the school (n=1).

Five of the groups indicated that they could not suggest ways in which the communication between the school and the mobile clinic could be improved, since there already was good communication between them. All eight of the groups indicated that there were no existing formal structures to facilitate cooperation between the school and the mobile clinic personnel, all communication and cooperation occurs informally and unstructured.

Five of the eight groups suggested that formal structures are needed, while four groups suggested ways to structurise communication between the schools and health personnel in mobile clinics. The suggestions included the following:

- A health committee should be established, including representatives from the farm schools and mobile clinic personnel (n=2).
- Two persons should be appointed in the district, to supervise the mobile services delivered to farm schools. They should visit the farm schools and iron out problems that might occur concerning the mobile health services (n=1).
- There should be a contact person in town with whom the farm schools can liaise concerning mobile clinic services, if need be (n=1).

Three of the groups felt that there was no need for formal structures to facilitate cooperation between farm schools and the mobile clinic personnel.

12. The role that Non-governmental Organisations (NGOs) and Community-based Organisations (CBOs) could play in rural school health

When asked what role NGOs and CBOs could play in health care to farm schools and rural communities in general, five of the eight groups identified some organisations that could play a possible role. Suggestions included:

- Churches could play an important role in counselling AIDS patients and could supervise the treatment of TB patients.
- Hospice should be decentralised to rural areas.
- Local pharmacists and medical associations should play a role as well.
- Business committees should be mobilised to help.
- SANCO is always involved in community affairs and could play a vital role in improving the health care conditions in farm areas.

- Old Mutual achievement awards: by providing certain awards for initiative to the farm communities, it could mobilise these communities to take initiative and improve their own conditions. Awards could be given, for instance, to the most beautiful farm garden, the cleanest yard, etc.
- Tshwelopelo Teacher's Association should be mobilised as well. The organisation has already come a long way in trying to establish a nutrition programme for the farm communities.

Three of the groups had no ideas as to who could be mobilised to play a role in the health of farm schools and communities.

13. Main findings and discussion

Of the 75 farm schools in the Bothaville district (73 primary and two secondary), eight were conveniently selected for inclusion in this study to assess the experience of mobile clinic users at farm schools. Teachers were interviewed because the very young learners (especially those in primary schools) might have jeopardised the validity of the data.

As was the case in the previous (clients and potential clients) study population, the most prevalent health problem experienced by learners was flu in winter. Stomach ailments and TB were second most prevalent. This could be expected because both of these diseases are mostly associated with poverty and it was clear from the previous chapter that the people in these rural areas are among the poorest of the poor. Skin problems related to puberty were also prevalent, which is understandable when the age group of these clients are taken into account.

The study further aimed to determine the type of services rendered most frequently by the mobile clinics. Treatment of minor ailments was indicated by seven of the eight teacher groups to be the most frequently rendered service. Immunisation ranked high as well, which is again understandable when it is taken into account that many of the children in the primary schools are still at an age where immunisation in necessary. What could be a reason for concern, though, is the fact that teacher groups at five of the eight schools indicated that family planning services are frequently rendered to learners. When taken into account that seven of these eight schools were primary schools, it could only be concluded that children in this study population are using family planning methods and must therefore be sexually active at a very early age. Health education was also rendered frequently (three of the groups indicated this) at some schools. Components of health education were first and foremost family planning (with seven out of eight school groups indicating that health education on this matter is rendered), followed by general health, personal hygiene and STD and HIV/AIDS education. Other teacher groups indicated they needed more health education from the mobile clinics. This is interesting when compared to the previous discussion in which the same number of teacher groups (presumably at three different schools) indicated that health education is frequently rendered at their schools. One would certainly expect the different mobile clinics in the area to provide the same services. From this it could be derived that it is seemingly not the case and that some mobile clinics provide adequate health education to their clientele, while others do not.

When the conversation turned to shortcomings of the composition of services rendered by the mobile clinics while visiting the farm schools, half of teachers indicated that the services were adequate to meet the needs of learners at their schools. A variety of reasons were given why teachers felt that the services were not adequate. Most of it criticism concerning the way in which the professional nurses were doing their work, which included that nurses did not spend enough

time with the learners; they were always in a hurry; nurses did not change the treatment if it did not work; nurses did not explain the reasons for ailments; nurses did not give enough attention to patient privacy; etc. Health managers and governors should view these criticisms as obstacles in the way of patient satisfaction. However, the other side of the picture should also be taken into account, and this is that the nurses serving on the mobile clinics are also just human beings and some of the reasons why they do things "wrong", could become quite understandable if one rides along with a mobile clinic for a day of work, like it was done during this study. Then one realises that it could be that some of these nurses spend such a short time with every patients because there are so many to see and they do not change the treatment if it does not work because they do not have other medicine available or are not allowed to dispense an alternative, or are not trained at a high enough level to make any other diagnosis or give any other treatment, and there is no doctor riding along to help out. It could also be the case that they do not explain the reason for a patient's ailment because of a language barrier, or there is a total lack of overlapping frames of reference to even begin and try to explain to a totally illiterate patient what is wrong with him or her, and it could also be that they sometimes do not give enough attention to patient privacy because there is such a lot of patients around and the mobile clinic is small and stuffy. This is not by any means an attempt at rationalising any shortcoming of nurses serving on the mobile clinics or an indication of a subjective researcher, although it might seem the case. It is simply an attempt to sketch a scenario from another side (that of the health provider) of the service that was observed during the study.

Among the other services that were not rendered by the mobile clinics, were eye and dental care, mental counselling and home visits to learners. The first three of these are all well known bottle-necks in the public health sector of South Africa and a scarcity (as a result of budget and staff constraints) with regard to these specific services are experienced among clients of the system throughout the country. The last one not rendered could be ascribed to the fact that the mobile clinic nurses do not have enough time to visit all their patients at home.

On questions posed to respondents with regard to health seeking behaviour in a case where a child fell ill at school, most of them indicated that they had some basic means at their school with which to treat very basic problems. One of these groups indicated that they sent a child home when he or she fell ill. In serious cases, the personnel see to it that a child goes to a doctor or clinic. They either took such a child themselves, or organised transport from a private person or the farmer on whose farm the school is situated. Last mentioned is again an indication that some farmers in the area are involved with the health care of the people who reside or attend a school on their farms. This was verified by a direct question asked in this regard. Five of the eight teacher groups indicated that the owners of the farms played an important role in the health care of children at their schools, mostly by providing transport to a doctor or clinic, but also by providing them with basic medication at times. There were three teacher groups who did not receive any assistance at all from the owners of the farm on which their schools were situated. All of them indicated that it would be very helpful to receive some assistance, one group indicated that they need the farmer to provide the school with piped water and the other two indicated that it would be helpful if the owners could show some interest in the school and its activities. This on the other hand is a definite indication that some farmers in the area do not have any interest in the goings on among the rural communities on their farms.

Six of the eight teacher groups indicated that they were informed with regard to the implementation of the new mobile clinic system. No standardised system of information dissemination was used to inform the schools, some were informed by the farmer or his wife, some by letter and some had to find out about it through the grapevine. Only two of the groups were personally informed by the mobile clinic personnel. To further illustrate the lacking way in which people were informed about the change, half of the groups that knew about the change, did not even know why it changed, a fact that could be seen as an indication of a lack of effort from the side of health care providers to involve the rural community in health care rendered to them. As was found in the previous chapter, serious questions could be raised with regard to the dissemination of information to the right people with regard to the implementation of a new mobile clinic system. When the study dug deeper by trying to establish whether there were any existing formal structures to facilitate cooperation between farm schools and mobile clinics, it was found that all communication occurred informally and in an unstructured manner, which means that this is not a problem unique to the implementation of the new system, but a general trend in the area. The majority of teacher groups felt that there was a need for formalised structures of communication between farm schools and mobile clinics. Some of them suggested ways in which this could be done, which included: the establishment of a health committee that include representatives from the mobile clinics and farms schools; two persons should be appointed in the district to supervise the mobile services delivered to farm schools by visiting these schools on a regular basis and ironing out problems that might occur; and one group indicated that there should be a contact person in town with whom farm schools could liaise concerning mobile services.

The attitudes of respondents concerning the old and new mobile systems were measured and mixed feelings were encountered. Three of the teacher groups preferred the old system to the new one. The most important reason for this was that they have problems transporting learners to the new points. One could say why not walk? Because, in the first instance, the two schools without points on the farm where they are located, are respectively five and six kilometres away from the nearest point, which is very far a distance to walk, secondly, some of the learners who may be in need of the services would not be able to walk too far because they might be ill, thirdly, weather conditions like rain and severe heat might not allow walking in the open, and fourthly, points might be visited during school hours which learners and teacher accompanying them could not afford to miss. This is a definite indication of an area in which the mobile service rendered to schools have become less accessible to some users since the implementation of the new system. Respondents were further asked how the transportation problem could be overcome and nearly all of the groups indicated that either the government should provide transport for all those living on farms without points, or farm owners should work together to provide transport for people living on farms who need transport. Especially the first of these solutions would certainly be regarded as near impossible to anyone who knows something about the financial circumstances of the Free State Department of Health and the second would have to be explored among farm owners in the district.

A further three teacher groups preferred the new system, for three reasons. Firstly, because a mobile clinic visits their school more regularly now. This is a good example of improved accessibility. Secondly, the mobile brings the services to the school now. From this response it could be derived that this school serves as a mobile stopping point in the new system, which makes the service very accessible to them. Thirdly, that they always know the exact date when

the mobiles will arrive in the new system. This is an indication of one client group for whom the information dissemination system used in the area works very well.

When looking back on the previous discussion, it could be concluded that the new mobile clinic system does have definite advantages, but mostly for those schools with a mobile stopping point on the farm where the school is situated. It is especially the transportation of learners to stopping points in cases where such a point is not on the farm where the school is located, that proves to be a substantial obstacle.

A further definite indication of a system that was not well implemented, was lack of information detected when only one of the groups who knew about the change in the system, stated that they had access to services only every two months. Again it is necessary to mention that the new system had already been in place for more than five months at the time of the study and that this kind of confusion might not have been encountered if the implementation had been better planned.

Teacher groups at the schools with mobile stopping points on the farm where they are located, indicated that the mobiles usually spent between thirty minutes and four hours at the point. It should be kept in mind that the pupil numbers at the schools varied between 22 and 182, and therefore it seems fair that the mobiles spend much more time at certain points than at others. It should also be kept in mind, though, that in the new mobile visiting point system, it is not only learners who make use of the points at schools or on farms where schools are situated, but all the rural dwellers in the area are supposed to utilise it. It might therefore be concluded either that some points have a much smaller catchment population than others, or that some points are much better utilised than others.

General ideas of teacher groups were explored when they were asked to describe important elements of what they believed to be the ideal rural health system for schools in this area. A wide variety of ideas were encountered. They included, firstly, that community health centres or fixed clinics, that are also staffed by a doctor, should be established all around the rural areas. This idea would not be viable in the light of the limited health budget of the Free State. Secondly, a health worker should be appointed at every farm school, to provide teachers and children with health education and see to their health care needs. This idea would also almost certainly be impossible, again in the light of a constraining health budget, but the possibility of training some teachers as community health workers and supplying schools with basic medicines could be explored as a possibility (this was actually mentioned by one of the teacher groups as a means to improve cooperation between mobile clinics and farm schools). A third idea was that basic medication should be provided to farm schools for the purposes of first aid dispensing. This is a possibility that could be explored as a viable option. Other suggestions that were made towards an ideal rural health care system included that the old system should be re-implemented because it worked better, especially because the mothers of smaller children could have been present during consultation with a child (this is impossible in the new systems on farms without a visiting point) and again, that transportation should be provided for those that have no point on their farms.

The data discussed provides very definite elements of an ideal rural system that will surely be the solution to most access-related problems in rural health care. Most of these suggested elements will unfortunately be near to impossible as a result of a limited public health budget and staff shortages, and therefore might never be realised.

The majority of the teacher groups indicated that the relationship between the learners, themselves and the nursing personnel working on the mobile clinics, was very good to good. Nurses were said to treat the children in the schools politely and friendly and to examine them thoroughly. Some respondents indicated that children are always happy after visiting the mobile clinic and that they have never received any complaints from the children. It was also said that communication between the farm schools and mobile clinic nurses was open and good and that the nurses were always prepared to meet them half way if they have any special needs. Those who indicated that some problems were experienced in this regard, indicated that there is a problem with language and that the clinic personnel sometimes struggle to explain the nature of health problems to the children and some said that some children are hesitant to visit the mobile clinics because it makes them uncomfortable. One of the teacher groups indicated that the relationship between the learners and the nurses was not good because the nurses treated the children rudely. Again an allegation of mistreatment of patients, as was found in the previous chapter, and because only one teacher group said this, it might mean that one of the professional nurses on a mobile clinic treat patients rudely while the others have a better attitude toward their clients.

Ideas of teacher groups were finally explored with regard to the role that NGOs and CBOs could play in rural school health and a variety of excellent ideas were provided that are definitely worth exploring. Some of these ideas, if realised, could truly play a very substantial supporting role to the mobile services in the area and empower and mobilise some community members to take initiative and improve health conditions on farms.

Chapter 6

RESULTS OF THE INTERVIEWS CONDUCTED AMONG PROFESSIONAL NURSES WORKING ON THE MOBILE CLINICS

1. Introduction

The following section deals with the mobile primary health care nurses' perceptions and views regarding the delivery of health care to people living in the Bothaville rural areas. Information obtained derives from in-depth interviews conducted with the three registered primary health care nurses who operated the mobile clinics. The main topics on which the respondents were interviewed included the following: work problems that they experienced; an evaluation of the previous mobile clinic system; an evaluation of the new system; the effects and influences of the change in mobile health services; planning and implementation of the visiting point system; and the possibility of service integration in the sub-district.

2. Problems currently experienced

The main structural problem with the health service delivery in Bothaville-Kgotsong was indicated to be the fragmentation of services. A lack of communication between the hospital, Local Authority clinics, PHC clinics and the district surgeon's office proves to be a serious problem. The result of this is duplication of prescriptions and inability to keep record of a single client. Little feedback is also received when a patient is referred to a district surgeon, while no information is obtained when a patient has been referred to a provincial hospital. As to the main structural problems with health care delivery in the Bothaville rural areas, the following impediments were identified:

- Since necessary adaptations have to be made, changes in the system of mobile health services usually lead to logistical problems influencing the actual service delivery to clients.
- There is no infrastructure to compile a profile of each patient, nor to keep accurate statistics of services rendered.
- Poor communication exists between the service providers and problems are mostly addressed with difficulty. Mobile clinic personnel are insufficient (it should however be kept in mind that, shortly after the study was completed, a fourth mobile unit staffed by a registered nurse and a cleaner was introduced; it could then be taken that these appointments alleviated the shortage in personnel to some extent).

3. Evaluation of the mobile health system

The following factors identified by the primary health care providers indicate the shortcomings of the previous system of mobile health care:

- Inaccessible roads, especially when raining.
- Services were rendered on a three monthly basis with the result that chronic prescriptions and family planning could not be provided sufficiently.
- No arrangements could be made to provide health care to clients when one of the nurses was on leave or attending meetings/courses.
- Travelling between farms was time consuming and only a few patients could be seen per day.
- By working alone, difficulties such as breakdowns, uncertain health conditions and security measures proved problematic.

When considering the advantages of the current mobile visiting point system, it is evident that some of the previous system's stumbling blocks have been overcome. These advantages are:

- Primary health care services are rendered to more clients.
- Chronic prescriptions and family planning services are available on a monthly basis.
- Weather conditions have less of an influence on the operational status of the mobile units, since only larger roads (accessible even in rainy weather) are followed to the mobile visiting points.
- Clinic activities are more routinised, since the providers have to maintain a time and date schedule for visiting mobile stopping points.
- Better communication with farmers, whose farms serve as visiting points, was established, as the dissemination of information to clients depends largely on their cooperation.
- Since the mobile units operate in teams of two, problems regarding uncertain health conditions, breakdowns and safety are better addressed.

However, with the introduction of the mobile visiting point system, some disadvantages and negative factors surfaced, which can be summarised as follows:

- During the establishment of the visiting point system, not all clients and farmers could adequately be informed about the change (many farmers are not members of a farmers' union, and it was impossible to notify all the people living in rural areas) - thus many clients did not receive health care for some time (the PHC clinic sessions in town contributed greatly to the dissemination of information regarding the new system).
- More clients are seen per day leading to a heavy patient load due to chronic prescriptions now supplied by primary health care services.
- The service is still inaccessible for clients living far away from a visiting point (it was noted that this inaccessibility is detrimental to the health of the elderly, psychiatric patients and small children in need of immunisations).
- The greater patient load does not allow for adequate individual attention, and health education suffers.
- Adaptations to changes in the record keeping system had to be made.
- Rapport with those farmers whose farms do not serve as mobile visiting points, has been lost - clients living on these farms are dependent on the dissemination of information from people living on farms that serve as visiting points.
- Organisation and planning (especially the logistics) had to be done on short notice - this led to a further deterioration in the communication and interpersonal relationships among the health care providers, since not all members were willing to adapt to changes in the mobile health system.

One health care provider stated that only a few clients visit the mobile visiting point on rainy days. Under the previous system of mobile health, however, the health care providers returned the following day to those farms to ensure health care delivery. With the mobile visiting point system, this is not possible, since the mobiles operate according to a fixed time and date schedule. Therefore, many clients have to wait another month before they receive health care (the farmers are, however, notified when a visiting point will not be visited and he/his wife is asked to fetch repeat medication in town). It was suggested that a part-time nurse be employed to provide health care in such cases. One health care provider stated that the purpose of primary health care changed from a preventative to a curative service and that more health education should be provided.

As to the lack in proper dissemination of information about the change in mobile health care systems, PHC sessions in town (from January to July 1998, five days a week) contributed greatly to the notification of (nearly) all clients and farmers. The new system of mobile health also entails that clients should take responsibility for their own health. However, the role which farmers/their wives play therein, such as providing transportation and reminding people of the visiting dates, should not be ignored. The health care providers were in agreement that more visiting points will be planned in the near future to make health services more accessible to clients living in remote areas.

4. Effects/influences of the change in mobile health services

In the light of the above mentioned disadvantages and negative factors, the following effects and influences were noted as being detrimental to the delivery of mobile health services:

- The greater patient load influences the actual service delivery (poorer quality of services and services are more curatively orientated than preventative and promotive).
- The change was not accepted by all primary health care providers, which put more strain on working relations.

The health care providers were divided as to whether the change in mobile health services was for the better or the worse. One felt that adaptations to the visiting point system were difficult to make and that many disadvantages exist. Another health care provider stated that the quality of health services have suffered with the implementation of the visiting point system, and that health care providers have little control over daily activities. It was furthermore indicated that the new system of mobile health is better for some, while being worse for others. While some clients view the visiting points as an opportunity for meeting friends and family, the logistics of the new system are experienced as a source of frustration for others, especially some farmers. One health care provider stated that, in the past, chronic patients had to obtain medication in town, since the mobile clinics only visited the farms on a three monthly basis. It was speculated as to what extent a monthly health service (with many disadvantages) should be provided, when such a service is inaccessible to many clients. Should chronic patients not continue visiting clinics in Bothaville/Kgotsong in order for all clients to receive primary (and especially preventative) health care? One health care provider envisaged that the introduction of more mobile visiting points throughout the whole district would prove to be the proper solution to this problem.

5. The influence of the mobile visiting point system on other health care services

The primary health care providers agreed that the mobile visiting point system functions better for other health care providers in Bothaville than the previous system. This is due to the fact that chronic patients now receive repeat prescriptions on a monthly basis at the visiting points, and not at the Local Authority clinics anymore. However, since no communication infrastructure exists between the various health care providers in Bothaville, duplication of prescriptions still occurs.

6. The role of farmers/their wives in the delivery of health care to people living in rural areas

The health care providers indicated that some farmers were involved in the change in mobile health services, while others were not involved or showed a total lack of interest. Although the farmers' unions played an important role in the dissemination of information regarding the change in mobile health, many farmers are not members of such unions and were therefore not involved. It was also stated that, although rapport has been lost with many farmers since the new system was implemented, one advantage is that the functioning of the current primary health care service is less dependent on the cooperation of farmers than in the past. Good relationships have been established with farmers whose farms serve as visiting points, and no problems are experienced in liaisoning with these farmers. The only problem with communication is that the telecommunication infrastructure does not always function properly. One health care provider noted that a nurse has to build good relationships with certain farmers in order to obtain their cooperation. However, many farmers are dissatisfied with the change in mobile health services and want individual visiting points on their farms again. A farmer/his wife's cooperation is also largely dependent on his/her relationship with the people living and working on the farm. It was furthermore indicated that not all farmers notify people living on their farms of the mobile health services' visiting dates. Some farmers are uncooperative and do not attend health meetings aimed at informing them of the change in mobile health services. As already mentioned, the change in health services in rural areas is a cause of frustration for some farmers.

The fact that many primary health care clients are dependent on transportation provided by farmers/their wives should again be emphasised. While some are not willing to provide transportation, other farmers/their wives are known to collect all clients in their vicinity with large transportation vehicles (such as tractors with trailers or trucks) and transport them to the stopping point. Not all farm owners live on their farms, and workers on such farms experience difficulty visiting the mobile visiting points, since there is no one to provide them with transportation. Other forms of transportation to the visiting points were indicated to include taxis, small trucks (*bakkies*), motor cars and horse/donkey carts. Some clients have to walk to a visiting point. Teachers at some farm schools provide transportation for pupils with private vehicles.

Many farmers prefer taking people needing health care to clinics in Bothaville or Kgotsong. This appears to be the general procedure when farmers go to town. The health care providers indicated that this is not likely to change in the near future. Visiting points closer to town could prove more convenient for these farmers.

7. Referral of patients to hospitals/DMOs/district surgeons

Health care providers stated that the main stumbling block in the referral of patients to health services in Bothaville is that of transportation. Although many farmers take people living and working on their farms to the hospital or district surgeon in town, this is not done by all. As a result, some referred patients seldom or never reach the health services in Bothaville. Other modes of transportation used by referred patients were indicated to be bus services, taxis, horse carts and some clients walked to the points. The mobile health care providers reported that little, if any, information is received back when a patient has been referred to health facilities in Bloemfontein or Welkom. Another problem identified was that patients are sent from one health facility to another, since no central health service currently exists in Bothaville. The following suggestions regarding the referral of patients were made:

- The number of referrals justify a district surgeon to accompany mobiles on their routes.
- The Department of Health should cover the transportation fees for clients.
- Farmers have to be sensitised regarding their transportation role towards the efficient operation of the referral system.

8. Planning and implementation of the mobile visiting point system

The health care providers indicated that they were consulted about the change in mobile health services by means of meetings with the district health authorities, as well as meetings with the local farmers' union. However, they were divided as to whether adequate planning was undertaken before the new system of mobile health was implemented. An important factor, which influenced the planning process, was timing - not all people living in rural areas could be notified about the change before its implementation. Improper functioning of the telecommunications service contributed largely to inadequate information dissemination. This led the health care providers to provide health services in town, to create a greater awareness of the change in mobile health services. It was indicated that the decision to have clinic sessions in town is bearing fruit, since nearly all people living in rural areas are familiar with the new system of mobile health. Preparations before the new system's implementation consisted of letters and schedules sent to farmers and relevant parties, posters put up at central points (clinics, hospitals, shops, farmers' cooperation, etc.) and broadcasting on radios. During this time, however, the record keeping system had to be changed and no training courses could be attended. No problems in communicating with health management during the implementation were experienced.

9. Integration of services under one authority

At the time of the study, a forum with the aim of solving problems in the public health system of the district as well as to improve communication among services, was in existence. The respondents felt that, although important health decisions and strategies were planned at meetings of this forum, not enough could be decided upon and planned because not all relevant health managers attended the meetings. The health care providers were further in agreement that an integration of all health services under one authority is possible and urgently needed. They identified certain factors that could hamper such integration, namely financial support, whether the structure is to derive from Local Authority or the provincial government, and differences in service contracts. One health care provider suggested that the Local Authority

should take the lead in such an integration, since it functions closer to the actual delivery of health services. In order to assist in an integration process, the personnel from the various health services should start to inform other services of their activities, systems and procedures. It was pertinently stated that, if the integration of health services is possible, all health services should be accommodated in one building. The health care providers gave the following advantages of an integration of health services:

- The problem of lacking cooperation and communication between health services will be solved.
- One (central) record system will be used.
- Patients will not be sent from one service to another.
- Better relationships with patients will be possible.
- Discipline and contingency will prevail.
- Relief personnel will more readily be available.

As to the authority structure of an integrated health service, the health care providers stated that it should consist of a health manager and committees from the different health service components. It was noted that the head of the integrated health services should be appointed from outside the Bothaville health services to promote objectivity. For an integrated health service to be initiated, the health manager needs to be appointed with a board of representatives, who will commence with the integration of health services under one roof.

10. Main findings and discussion

One of the most important problems that surfaced during this part of the study, was that of fragmentation and a lack of communication among public health service deliverers (hospital, Local Authority clinics, PHC clinics and district surgeon office) in the area. The nurses indicated that they receive little or no feedback from either the hospital or district surgeon with regard to the conditions of and drugs prescribed to their rural patients. This results in the duplication of prescriptions and the inability to keep record of clients. This lack of information makes treating some patients correctly difficult because the lack of information whether some patients are already on treatment at another service are keeping them in the dark. These health care providers called for the development of infrastructure to compile patient profiles that will be accessible to all public health services. The integration of health services in the Bothaville district would, according to the nurses interviewed, be the perfect solution to this and numerous other problems experienced in the system. The nurses agreed that all health services in the district should be integrated and run by a central structure of authority, and not as is the case at the moment, by the Local Authority and the Department of Health. It was indicated that lacking financial strength, a power struggle between the province and the Local Authority and differences in current service contracts and terms would be some of the most important obstacles in the way of this being realised. They felt that it would be worth the effort, however, because it would be the best option for all in the district, both health personnel and their clients. Reasons for this included that better cooperation and communication will prevail between health services; a single, standardised patient record system will be used, making it easier to keep track of patients and their treatment at different services; it would render services more accessible to patients because they would not be sent from service to service and as a result of this, service provider-patient relationships will be much improved; discipline and contingency will prevail; and relief

personnel will be more easily available. It was indicated that the last mentioned advantage was a serious problem at the moment because of the different authorities overseeing public health services in the district.

On some questions posed to the mobile clinic personnel with regard to the advantages and disadvantages of the previous and new mobile clinic systems and their preferences concerning this, it was clear that they were divided. It seemed, however, that the new system overcame numerous problems caused by the old system. These included the following:

- Family planning and chronic prescriptions are now available on a monthly basis. This was not possible in the old system because most farms were only visited on a two to three monthly basis. Some medication needs to be issued on a monthly basis because patients have to be monitored more often than every two to three months.
- Weather conditions have less influence on the operational status of the mobile units now because only the larger roads are used on routes to the points. Some of the smaller gravel roads on and between some of the farms were very difficult to access with the mobile vehicles in rainy weather, as had to be done previously, and this sometimes resulted in services not being rendered at all for long periods on certain farms.
- It is possible to see more patients per day now. In the past, the mobiles travelled to every farm and on some only two or three clients were seen. The extensive travelling took up most of the time.
- The clinic activities are now rendered according to a set time table and the nurses have to adhere to this. In the past, no rural dwellers could tell beforehand when the mobile clinics would visit the farms they reside on. Presuming that they receive the time table or dates on which the clinic will visit the point, this is very advantageous for the clientele of the service.
- The professional nurses are working in teams of two now, which make it easier to diagnose uncertain cases (by conferring with one another), to handle breakdowns and the service can still continue if one nurse falls ill or has to go for training or a meeting, which were impossible with the previous system. They also indicated feeling safer working in teams.

A number of serious disadvantages, however, especially for the clientele of the services, surfaced as a result of the implementation of the new mobile clinic system. Among these were temporary disadvantages, and although they are serious, they will probably be something of the past as soon as the new system has been in operation for a while. They include the fact that not all clients were informed in time of the change in system and some are still not informed. This was also found in previous empirical chapters. The nurses indicated, however, that they did not have sufficient time to inform everyone. Another factor that contributed to this was the fact that telephone lines were stolen in the district at the time of the transformation and in their planning of the implementation process they depended upon, among other means (including letters and time schedules sent to farm schools and farmers, posters at central points and radio broadcasts), telephone communication which they then did not have access to. Some of the mobile clinic nurses further commented that it was a lot of work to adapt the record keeping system to suit the new visiting point system and the short time in which intensive logistical planning had to be done to implement the new system caused tension among the mobile clinic nurses. Although this tension may be something of the past once everyone has adapted to the new system, the relationship among some members of the mobile service in Bothaville was reported to be stormy for some time already and this was reported to be very difficult to solve, although numerous people have attempted it.

Apart from these temporary problems, more serious and lasting problems were encountered. The most important of these being the inaccessibility of services to clients living on farms without mobile visiting points. This was identified as being a major obstacle in both previous chapters as well. The mobile clinic nurses indicated that it is especially the elderly, mental patients and babies in need of immunisation, whose health are the most affected by this inaccessibility, because they have problems reaching the points if transport is not available. Farmers and their wives on farms without visiting points now have an important role to play in the transportation of rural dwellers to visiting points. Although some farmers do take people residing on their farms to visiting points, not all farmers do so. This was also found in the previous parts of the empirical study. As a result, a number of patients have to walk to the visiting points since taxi services are few and far between, operating sporadically only on the large roads among the farms. There is no bus services between points and few rural dwellers have access to other means of transport.

A further problem related to the transportation of clients to a higher level of care, for instance the DMO or hospital. According to the nurses, it is quite difficult for most patients to reach town for this purpose. A common practice among some farmers was reported to be that they take their workers to town clinics or doctors when they go into town for business. One of the main findings in the first empirical chapter was that just more than half of respondents have ever made use of the mobile services. The fact that it is common among farmers to take their workers to town instead of allowing them to attend the mobile services, could be one of the reasons for this low percentage. Unfortunately, as has been mentioned above, not all farmers are this forthcoming and means to get to town are very scarce for rural dwellers.

Further problems that surfaced as a result of the new system, included that contact with those farmers whose farms do not have a mobile visiting point, was lost. This is again especially disadvantageous to clients living on these farms, because most of them are dependent on the farmer/ his wife for information regarding the visiting schedules and changes. With the loss of contact, nurses did not feel confident that messages of this nature would reach the rural dwellers living on these farms.

Some farmers were not consulted about the change, because the nurses worked through farmers unions and not all farmers in the district are represented on these. Farmers on whose farms visiting points were established were well informed, and the nurses indicated that they have a good relationship and rapport with them. It was further indicated that none of these farmers had any problems with the visiting points on their farms. It is only some of the farmers without visiting points on their farms who have problems, because they want this service for their workers as well. This indicates that it is not only the clients on farms without visiting points, but also some farm owners, who have a problem with the new point system.

To return to the point of discussion, a further disadvantage of the new system was mentioned to be the fact that nurses now have to consult more clients in one day. This unfortunately does not mean that more new clients are reached by the new system, but that the largest proportion of this increase could be ascribed to chronic patients attending the services to fill repeat prescriptions. They indicated that as a result of the greater patient load, there is less time for individual attention and consequently health education is suffering. One of the respondents felt that the service they are rendering with the new mobile visiting point system is moving away from a preventative and promotive service towards a curative (filling repeat chronic prescriptions a lot of the time) one, which is not what PHC is all about. A positive result of the monthly point system

is the fact that chronic patients receive their medicine from the mobile clinics now, and this reduces the work load of the clinics in town.

It is difficult to envision how these more serious and lasting difficulties could be overcome. A very viable suggestion made by one of the professional nurses was that more visiting points should be established, to take services closer to more clients. This might make a substantial difference to accessibility of services for patients. Another important factor that would make a difference is more professional staff. The nurses indicated that they are expecting another professional nurse to join their service soon, four professional nurses (two teams of two mobiles each) would then be working in the Bothaville rural area. An additional professional nurse would surely make a difference with regard to work load in the rural areas of the district.

Chapter 7

RESULTS OF THE INTERVIEWS CONDUCTED TO EXPLORE OPINIONS OF GENERAL PUBLIC HEALTH CARE PERSONNEL IN BOTHAVILLE AND KGOTSONG REGARDING HEALTH CARE DELIVERY IN THE DISTRICT

1. Introduction

This part of the study was conducted among health care professionals in Bothaville and Kgotsong to assess their opinions of health care services rendered by mobile clinics in the district, as well as to explore general public health care issues in the district. The main interview topics, included problems experienced in the provision of health services in the sub-district; an evaluation of the previous and the new mobile clinic system; the effects of the change in mobile clinic system on the services that are rendered; the planning and implementation of the new mobile clinic system; general communication and community involvement in health care; and the integration of public health services in the sub-district. Structured personal interviews were conducted to obtain the data presented in this section. At least one health worker was interviewed in each public health service in Bothaville and Kgotsong. A total of 15 general public health care personnel members, the details of whom are depicted in Table 74, were interviewed.

Table 74: Categories and numbers of general health care personnel with whom interviews were conducted

Health-related facility	Location	Number	Category of health worker
Bothaville municipal clinic (fixed clinic)	Bothaville	1	Professional nurse (clinic manager)
K. Maile municipal clinic (fixed clinic)	Kgotsong	1	Professional nurse (partly with clinic manager and partly with another professional nurse)
Kgotsong municipal clinic (fixed clinic)	Kgotsong	1	Professional nurse (clinic manager)
District medical officer services	Bothaville	1	Professional nurse
District medical officer services	Bothaville	3	Medical doctors
Bothaville Hospital	Bothaville	4	Professional nurses (one of whom is the matron)
Emergency services (ambulances)	Bothaville	3	Ambulance professionals (Emergency services personnel)
Local Authority	Bothaville	1	Head of Local Authority-driven health

2. Problems among health care institutions in Bothaville and Kgotsong

The respondents identified a wide range of structural and organisational problems with health care delivery in Bothaville and Kgotsong. These problems are depicted below:

- Serious communication and cooperation problems exist among the hospital, clinics (also among different clinics), district medical officers and emergency services personnel (n=8).
- Fragmented services: services operate under different authorities and are therefore uncoordinated and segmented (n=4).
- Relationship problems exist among professional nurses in the public health services in Bothaville. This was described by different respondents as being caused by professional jealousy and that this discord has been in existence for a very long time. These problems are hampering communication among different health care services as well as the synchronisation of services delivered (n=4).
- The fragmented services has resulted in confusion among personnel about the services that they are supposed to render. This was described by two of the respondents as "too many chiefs and too little Indians" (n=2).
- The fact that services are physically fragmented, thus located apart from each other and not under one roof, makes communication, cooperation and coordination difficult (n=2).
- Tasks assigned to emergency personnel are not coordinated. Hospital personnel, doctors and professional clinic nurses give different orders concerning the same cases and this confuses the services which are supposed to be delivered (n=1).
- Clinics are only open during business hours, after hours all patients go to the hospital, even for minor ailments (n=1).
- Patients are still referred to the hospital unnecessarily by some of the clinic personnel (n=1).

Two of respondents were uncertain and did not respond to this question.

3. Evaluation of the mobile clinic system

Seven respondents commented on the main structural and organisational problems concerning the delivery of health care to farm communities in the Bothaville area. These comments were:

- Not all potential clients on farms are reached (n=2).
- There are not enough personnel serving on mobile clinics - the rural population is too large and there are only a few professional nurses to serve them (n=2).
- Communication between mobile clinic services and other public services is not up to standard (n=1).
- Mobile clinic personnel have to travel long distances, on bad roads, to reach people on farms. This is not always safe (n=1).
- Communication could be a problem on the farms since some people living on farms are unable to speak either Afrikaans or English (n=1).
- The mobile clinic personnel have no form of communication when on the farms; this makes emergencies difficult to handle. It also renders coordination between mobile clinics and other public health facilities in Bothaville a problem (n=1).
- One of the doctors had a problem with the fact that he has to write chronic medication prescriptions for patients who he had seen months ago last. The reason for this is that clinic personnel are now allowed to take chronic prescriptions to people living on farms every

month. Although this makes life much easier for chronic patients on farms, the doctors have no control over fluctuations in chronic conditions, which could be very dangerous (n=1).

- The personal relationships between mobile clinic personnel and certain other public health services are problematic, and this also hampers communication (n=3).
- The public health services are fragmented, which hampers communication, coordination and cooperation among mobile clinic services and other public health services in the Bothaville area (n=2).

Eight of the respondents indicated being uncertain about problems in this regard.

3.1. Evaluation of the previous mobile clinic system

Six out of the twelve respondents indicated that there were no advantages to the previous mobile clinic system. One respondent indicated being negative about the entire mobile clinic concept, whether in the form of the previous or the new system. The reason given for this was that people on farms are not being reached by the previous or the new mobile clinic system. The five interviewees who responded that there were some advantages to the previous system, identified these as being the following:

- More people were reached at their homes. Farmers are not always lenient in terms of transporting people to the visiting points of the new system or in terms of giving people leave to attend the mobile visiting points during working hours (n=3).
- More children were reached for the purposes of immunisation, because the mobiles used to go to all the farm schools (n=2).
- More elderly people were reached at their homes. It is now difficult for elderly people, disabled people and mothers with children, who have to travel to the mobile visiting points (n=1).

With regard to the main shortcomings or disadvantages of the previous system, three of the twelve respondents were uncertain, one indicated being negative about the previous and the new system of mobile health care, because all potential clients are not being reached and the remaining eight respondents provided the following answers:

- Mobile clinics did not reach farms regularly enough, only once every three to six months (n=2).
- The patients on farms never knew when the mobile would arrive (n=2).
- Travelling vast distances to all the farms in the district was very difficult for the mobile personnel (n=1).
- There was too much work for the personnel employed on the mobiles (n=1).
- The amount of travelling in the previous system was time consuming since the personnel had to travel to all the farms in the district (n=1).
- It was economically unpractical, since only a few people live on some farms and the personnel had to travel to each and every farm, no matter how many people lived there (n=1).
- Not everyone on the farms were reached (n=1).

Five respondents indicated that some of the shortcomings of the previous system have been rectified by the implementation of the new system:

- There are now set dates according to which the mobiles go to the different points and in this way more people know about the system and, therefore, more people are reached (n=2).

- The fact that two professional nurses work together now means that more people can be consulted in a shorter time (n=2).
- The services operate more regularly since they visit the points once per month (n=1).

Only one respondent indicated that none of the problems were solved with the implementation of the new system. This was a doctor who is very concerned about the fact that the mobile clinics can now take chronic medication to the farms every month, thus preventing the doctor from monitoring the patient's condition monthly. Six of the respondents indicated being uncertain/not being familiar enough with the mobile clinic system and, therefore, were not knowledgeable enough to answer this question.

3.2. Evaluation of the new mobile clinic system

The vast majority of the respondents indicated that they know about the change in the mobile clinic system. Only the emergency services personnel did not know about the change. The twelve respondents who indicated that they know about the change, were asked whether they know why the system was changed. Eight of them said that they think it was changed to:

- reach more people living on farms (n=4);
- reach people living on farms more regularly (n=2);
- save time, as it is time consuming to travel to all the farms in the district (n=2); and
- educate patients to take responsibility for their health in the sense that it is now their responsibility to travel to points if there is no point on the farm where they live (n=1).

The other four respondents were uncertain why the system has been changed.

Ten of the respondents indicated that the main advantages of the change were:

- The clinics reach people more regularly, once every month (n=4).
- The clients of the mobile clinics always know when the clinics will arrive on the farms, as the personnel always pre-arrange the dates (n=3).
- The clinics reach more people with the new system (n=3).
- More people living on farms attend the clinics since the implementation of the new system (n=1).
- The new system is more economical as personnel travel less and less money is spent on fuel (n=1).

Two of the respondents were uncertain about the way in which the new system operates.

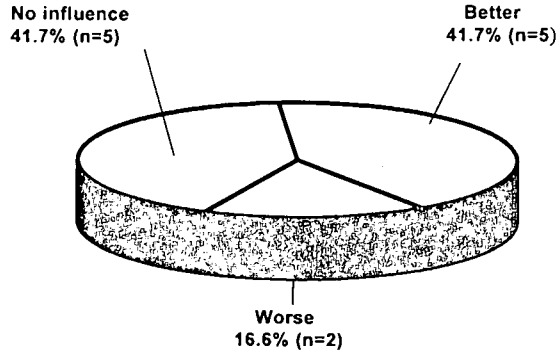
The main disadvantages of the new system were indicated to be the following:

- It is difficult for some of the patients to reach the mobile visiting points if there is not a point on their farm. This is especially problematic for elderly people (n=4).
- Chronic medication are now taken to the farms on a monthly basis, without a doctor regularly monitoring the chronic conditions of rural clients (n=1).

Three of the respondents suggested that they were uncertain about how to answer the question, while a further two could not think of any disadvantages.

Figure 13 depicts how respondents experienced the influence of the new mobile clinic system on the health services rendered by them.

Figure 13: Influence of the implementation of the new mobile clinic system on public health services in Bothaville and Kgotsong



The two respondents who indicated that the implementation of the new mobile clinic system was for the worse, gave the following reasons why:

- Patients were sent from the municipal clinics to the primary health care (PHC) clinic (mobile clinic office in town) during the implementation phase. This was inconvenient for the patients. The reason why this was done was that the mobile clinic personnel needed to inform everyone about the new mobile clinic system (n=1).
- The new system has a negative influence on the district medical officers (DMOs) facility, because patient numbers have decreased drastically since the implementation of the system. This is economically disadvantageous for the DMOs, since they are paid per patient (n=1).

All of the respondents who indicated that the change had been for the better, gave the reason that patient numbers at their facilities have decreased. Three of the interviewees who responded this way were professional nurses from the three municipal clinics in Bothaville and the other two respondents were professional nurses from the hospital. It is interesting to note that the decrease in patient numbers was a positive experience for representatives of the five fixed public health care facilities, who receive a standard salary every month no matter how many patients they see. It was experienced negatively by the professional nurse employed at the DMO facility, which is a private facility, and relies on the amount of money received for every patient treated.

Two respondents indicated that the change had been for the worse for clients of the mobile services, while seven respondents felt that the change made it easier for these clients. Two respondents were uncertain and did not answer this question. Those respondents who indicated that the change made it easier for clients of mobile clinics, gave the following reasons:

- A timetable has been distributed and people now know when the mobiles will arrive on the farms (n=4).
- The farmers assist people living on the farms to get to the mobile visiting points (n=1).
- Chronic patients on farms do not have to go into town anymore, they receive their medication every month, on the farm (n=1).
- Patient numbers (at this specific facility) have decreased significantly, therefore it could be concluded that people living on farms prefer the new system and utilise it better (n=1).
- The mobiles reach the points more regularly, this is better for people living on farms (n=1).

The two respondents who felt that the change made it more difficult for patients on farms, gave the following reasons for their answers:

- The patients are confused by the new system and do not know where to go (n=1).
- The new system makes it difficult for people living on farms without mobile visiting points, since they have no transport (n=1).

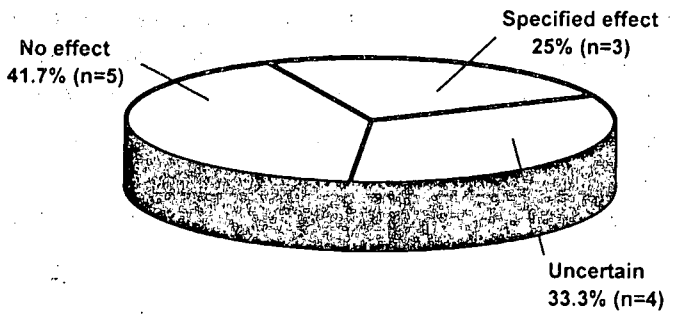
With regard to whether the implementation of the new system made mobile clinic personnel's work easier or more difficult, nine respondents felt that it made it easier for them. One respondent felt that it made it easier for some of the personnel and more difficult for others, since more patients are seen per day and some of the personnel work faster than others. Two respondents indicated being uncertain. The nine respondents who indicated that the change made it easier for the mobile clinic personnel, provided the following reasons:

- They see more patients per point and travel much less (n=6).
- They work in teams of two professional nurses and this make it easier for them to find solutions to difficult cases (n=2).
- It is safer for them because they work together in teams of two mobile clinics per point (n=1).

4. Effects of the implementation of the new mobile clinic system on other public health facilities

Nine of the respondents indicated being either uncertain about the effect of this change on their service (n=4) or that it had no effect on their service (n=5). Only three respondents specified the effect that the change had on their service/facility. This is depicted in figure 14.

Figure 14: Perceived effect of the implementation of the new mobile system on the public health care facilities in Bothaville and Kgotsong



The three respondents who specified the effect, indicated the following:

- The professional nurse at the DMO clinic indicated that the DMOs are seeing less patients since the system changed (n=1).
- The professional nurse at the Kgotsong municipal clinic indicated that they experienced a relief in patient load (n=1).
- The respondent at the Bothaville municipal clinic indicated that the clinic was tremendously overloaded during the implementation period, because the PHC clinic (mobile clinic offices) in town was closed for a while and all the patients from the rural areas, who usually used the PHC clinic in town, flocked to the Bothaville clinic (n=1).

Eleven of the respondents indicated that the farmers in the district regularly bring their workers to the facilities in town rather than allowing them to attend the mobile clinics. The one facility which indicated that this never occurred, was K. Maile clinic in Kgotsong.

The three doctors interviewed indicated that the farmers are willing to pay for their services, because they know the service they receive at the surgery is of good quality. Therefore, some of them rather take their workers to the doctor than let them attend mobile clinics (n=3). Two of the doctors further indicated that some of the farmers bring their workers to the doctor first in order to save time, because the referral system is time-consuming and production on farms is negatively influenced by this (n=2). A further two farmers indicated that taking workers to the doctor makes it easier for them to follow up the conditions of their workers, as it is easier to stay in contact with the doctor than with the mobile clinic personnel (n=2).

The two municipal clinics which indicated that farmers bring their workers to them rather than allowing them to attend the mobiles, indicated that the workers fall ill between mobile clinic visits and therefore it is inevitable that farmers bring their workers there at times (n=2). The hospital personnel who were interviewed felt that some farmers are not adequately informed about the mobile clinic system and therefore they bring their workers directly to the hospital (n=4). One of these respondents further indicated that the farmers bring their workers to the hospital after four in the afternoon when work is completed for the day. This is convenient for the farmers (n=1). Three of the respondents from the hospital indicated that some farmers drop their workers off at the hospital and come and fetch them again when it is convenient for them. These people then have to sleep over at the hospital, which is very expensive for the Department of Health, and unnecessary, while in most cases they could have been treated at a clinic (n=3).

The head of municipal health services, the professional nurse at the DMO clinic and one of the hospital personnel interviewed indicated that, when the farmers go to town for business, it is convenient for them to bring their workers in need of medical care, to their facilities (n=3). This is not a practice that will easily be changed.

Only three of the twelve respondents suggested measures to solve this problem. These suggestions included the following:

- Two of the professional nurses at the hospital indicated that the farmers should be told not to bring their people to the hospital. They should be informed that the people living on their farms are supposed to attend the mobile clinics and can only be referred to the hospital by the doctors (n=2).
- One of the municipal clinic personnel indicated that the farmers are not well enough informed about the mobile clinic system. Farmers should therefore be better informed (n=1).

5. Accessibility of public health services in Bothaville and Kgotsong to patients referred from farms

Only three of the respondents, two doctors and the head of municipal health services, indicated that they were not aware of the transport problems experienced by patients from rural areas who are referred to a facility in town. Nine respondents indicated that they are aware of the following transportation problems experienced by the rural communities:

- Not all farmers are willing or have the time to take people living on their farms to a health facility in town (n=4).

- People have transport problems, the mobile clinics are not allowed to help people with transport (n=1).
- People reach town by taxi, which is very expensive (n=1).

Three of the nine respondents did not elaborate on the type of problems experienced by the farm communities to reach services in town, because they were not knowledgeable enough to provide information regarding this problem.

Respondents were further asked how their clients usually reached town when referred. Table 75 depicts the means of transport used.

Table 75: Means by which referred patients reach town

Means of transport	Number of respondents indicating the means (n)*
Taxi	8
Farmer arranges transport	7
Walk	5
Lifts from passing vehicles	3
Farmers phone ambulance	3
Bus	1
Bicycles	1

*Number of responses, not respondents

As can be derived from Table 75, the respondents perceived that most of the people living on farms in the Bothaville area use taxi services to reach health care facilities in town. Two of the twelve respondents were uncertain.

Respondents were further asked for suggestions to solve the transportation problems of referred patients living on farms. Seven of the twelve respondents were uncertain as how to solve these problems. Five respondents proposed the following solutions:

- A more serious effort should be made to involve farmers in the transportation of people living on their farms to the facilities in town (n=2).
- A contractor should be commissioned by the Department of Health or the Bothaville/Kgotsong municipality to transport people from the farms to services in town (n=2).
- Mobile clinics should be allowed to transport people to the facilities in town in cases of emergency (n=2).
- Bus services should be made available in the rural areas (n=1).

The three emergency services personnel members (who did not know enough about the mobile clinic system to answer most of the questions, and who therefore were left out of the largest part of this report) indicated that farmers misuse the ambulance services regularly for cases not warranting the services of an ambulance. When a worker falls ill, some farmers simply phone the ambulance service and on reaching the farm, they realise that, in many cases, they have been called out to transport someone with a minor ailment who could have been treated

successfully at clinic level. Ambulance services are very expensive and farmers do not realise that, therefore farmers should be better informed about the cost of ambulance services.

6. Aspects of the referral system in the area

Five of the respondents indicated that they do not experience problems regarding the referral system in the area. The other seven respondents suggested the following alterations that could be made to address problems and improve user-friendliness:

- Mobile clinic personnel should be allowed to refer emergency cases directly to the hospital where there is a doctor available at all times to screen patients on arrival (n=3).
- A doctor should accompany mobile clinic personnel to the farms and conduct his sessions there. In cases of emergency, patients should be referred directly to the hospital. At this stage a patient has to go to a doctor first before he/she can be referred to a hospital. This is problematic in emergency cases because it is very inconvenient for a very ill person to have to attend different facilities before being admitted to the hospital (n=1).
- All the public health care services should operate from one building in Bothaville. Patients have to go through the entire chain of referral points, which are not close to each other. This is very time consuming for patients and difficult for very ill patients and older people (n=1).
- The referral system operates satisfactory, except that the mobile clinic personnel and the fixed clinic personnel generally do not write enough information regarding the condition of patients and reasons for being referred on the referral letters. The information written by the doctors on the referral letters is adequate (n=1).
- Patients are being sent from one point to another, the referral system should be simplified for the sake of the patients (n=1).

Nine of the twelve respondents indicated that they have not encountered any complaints from referred patients about the change in systems. Two of the respondents who indicated hearing some complaints, reported that the complaints were concerned with the fact that the referred patients live too far from the services in town. This problem could, however, not be linked directly to the change in the mobile clinic system, for the simple reason that the patients live the same distance from the town that they did in the previous system. The other respondent indicated receiving complaints that the mobile clinics do not reach the farms regularly enough. This could also not be linked to the change in the system, since in the new system the mobiles reach the points at more regular intervals than they did in the previous system.

7. Planning for the implementation of the new mobile clinic system

Some of the respondents (n=5) felt that the mobile clinic personnel had not planned adequately before implementing the system. Four of the respondents felt that adequate planning was done and three respondents (the DMOs) did not know.

Those respondents who felt that planning was inadequate, provided the following reasons:

- The personnel did not involve the clients on the farms in planning the geographical distribution of the points. When the clients of the service heard about the change, it had already been planned and implemented (n=2).

- The mobile clinic personnel did not communicate the change thoroughly enough to the Bothaville municipal clinic. When they implemented the change, this clinic suffered a tremendous patient load for a period, which they were not prepared for (n=1).
- Communication and teamwork between the mobile clinic personnel is not good and this could have hampered the planning of the new system (n=1).
- There are still numerous rural dwellers who are confused about the new system, which could be an indication that information about the change was not adequately disseminated (n=1).

The four respondents who believed that adequate planning was done, gave the following reasons:

- The mobile clinic personnel know their patients and are aware of their needs (n=2).
- The mobile clinic personnel planned adequately before the implementation of the new system. The conflict between the mobile clinic personnel makes the situation difficult for the operation of the services in general (n=1).
- The mobile clinic personnel planned adequately before implementing the new system. They started at the correct point, by involving the farmers first (n=1).

Except for the three doctors, all the other respondents were informed about the change in the mobile clinic system through the coordination meetings held in Bothaville. The doctors were invited to the coordination meetings, but indicated not having had time to attend.

8. Community involvement in public health care in the Bothaville district and dissemination of health information to people in the district

Respondents were asked to identify the means by which information regarding health matters is disseminated in the communities of Bothaville and Kgotsong. Table 76 depicts the ways in which information is being distributed.

Table 76: Ways in which information regarding health matters is disseminated in the communities of Bothaville and Kgotsong

Way of information dissemination	Number of respondents
⇨ Pamphlets - we put up pamphlets at central places in the community, e.g. municipal buildings, shops, saloons, taverns, etc.	4
⇨ Distribute pamphlets to clients using the health care services	
⇨ The media is used - the local news paper and Sesotho radio station are both being used for this purpose	4
⇨ Personnel in health care services communicate important health care information to patients during consultations	3
⇨ Church services - ministers give us time to make announcements during services or announce important messages himself during the announcement phase of the service	2
⇨ Schools - we go to schools and disseminate important messages to the children	1
⇨ Board meetings of councillors - councillors allow us time to disseminate important information	1
⇨ Clinic committees – important information could be distributed through clinic committees on which representatives from the community serve, it is their function to disseminate important health related information to the communities they represent	1

Way of information dissemination	Number of respondents
⇨ Patients disseminate information among themselves - they tell one another about important health matters	1
⇨ The clerk employed by the DMO-clinic disseminates information while the patients are waiting in the clinic to consult the doctor	1
⇨ Municipal circular letter is being used	1

One respondent indicated not knowing about any system of disseminating information to people in rural areas (n=1). Five of the twelve respondents indicated that they encounter problems in communicating with their rural clients. The problems included:

- It is difficult to reach people on farms, because of the vast distances and problematic infrastructure - there is no way to reach them (n=3).
- The farmers are not always willing to transport people to the town, and it is difficult to communicate with the people if they do not come to town (n=2).
- There are a lot of people on the farms who cannot read, which makes written communication difficult (n=1).

The seven respondents who indicated that they have no problems in communicating with people on farms, provided the following reasons:

- We phone the farmer if we need to communicate with clients on the farms (n=4).
- We have translators at our health care facility in case someone from the farm community cannot understand our language (n=2).
- There are numerous informal channels through which people on farms can be reached and communicated with (n=1).

The health care personnel in Bothaville are clearly not well informed about community participation in the area and community involvement is therefore neglected.

Table 77: Ways in which community members participate in health matters of Bothaville, Kgotsong and the larger municipal district

Way of participation	Number of respondents
Clinic committees	3
Bothaville and Kgotsong health committee	1
Bothaville health services coordination meetings	1

Three of the respondents indicated that the community of Bothaville magisterial district is not involved in health matters. A further three respondents indicated being uncertain as to how the community is involved. K. Maile clinic and Kgotsong clinic indicated having clinic committees in which community members play a vital role. Another respondent indicated that a health committee was elected, but interest from the side of the community is failing. The respondent who indicated that the community could provide input in health matters through the Bothaville health services coordination meeting, also indicated that interest from the side of the community in this matter is failing. There is also supposed to be representation from the farm schools in the district at these meetings, but this person, if in attendance, never provides any input. One of the

respondents indicated that if a community member wanted to be involved in health matters, he or she should go to the municipal building and apply for involvement.

Table 78 depicts the perceived importance of community involvement structures.

Table 78: Respondent's views on the necessity of four different community involvement structures

Type of community involvement structure	Necessary (n)	Uncertain (n)	Unnecessary (n)
Clinic committees	8	3	1
Hospital boards	11	1	1
Community health forums	9	1	2
District Facilitating Committees	8	2	1

As can be derived from the above table, the majority of respondents felt that most of the community involvement structures are necessary. It was only the clinic committees of K. Maile and Kgotsong clinics that functioned properly at the time of the study, most of the others did not or were completely non-existent. Regarding the clinic committees, one respondent indicated that it wastes the clinic representative's time, because it is poorly organised and there are no inputs from the community members serving on the committee. Regarding community health forums, it was stated that there was one in Bothaville, but nobody was willing to attend the meetings and it was a struggle to get community members involved. Five of the respondents indicated that the District Facilitating Committee is a total waste of time. Reasons given for this included that it is very poorly organised and does not function adequately; no decisions are being taken in the meetings; and the value of this committee cannot be seen.

9. The relationship between public health facilities in Bothaville and the mobile clinic personnel

Seven of the ten respondents, in this section, indicated that they have a good relationship with the personnel of the mobile clinics. One of the doctors indicated having been in conflict with them once or twice, but that it was sorted out. Another doctor indicated not having contact with them. The respondent from Bothaville municipal clinic indicated that they had serious problems in the past, but they have solved most of them and that their relationship has improved. This respondent also indicated that the mobile clinic personnel have serious relationship problems among themselves, which will have to be sorted out, because there is no teamwork among them and it is difficult to work with them when they are together.

10. Improving the delivery of health care in Bothaville, Kgotsong and the larger municipal district

Ten respondents indicated that the functioning of the mobile clinics could be improved if the following measures were taken:

- Appoint more staff. There are not enough professional nurses in the mobile clinic service to serve the entire Bothaville farm community (n=6).
- Conflict among the professional nurses working on the mobile clinics should be resolved (n=2).

- The Department of Health in the Free State should supply the service with more mobile units (n=1).
- The vehicles used should be in better working condition; the staff frequently have problems with breakdowns (n=1).
- The mobile clinic service, as it is now, does not work adequately, satellite clinics should be built on a number of farms as a better option to delivering health care to the farm community (n=1).
- Services should be rendered more regularly and with shorter intervals between visits (n=1).

Three of the respondents indicated that they are uncertain how the mobile clinic service can be improved.

The three emergency services personnel members participated in the interview from this point onward again. Ten respondents suggested the following ways to improve the public health service in Bothaville and Kgotsong:

- Communication and cooperation between the different services should be improved (n=3).
- Services should be integrated under one management structure. There are enough health care personnel in Bothaville, but the Local Authority and PHC personnel are managed by different organisational structures, which makes cooperation between these services difficult (n=3).
- Rural dwellers are neglected regarding health care. Clinics should be built on central farms (n=1).
- K. Maile clinic needs more personnel and the clinic needs to be reconstructed to be able to accommodate the tremendous patient load experienced by the clinic (n=1).
- TB patients should be separated from other patients in the waiting rooms of clinics. The health of other patients are jeopardised when waiting with TB patients for long periods (n=1).
- Decisions should be made and stuck with. More control is needed over the different public health services in Bothaville and Kgotsong (n=1).

Two respondents were uncertain about means to improve health care in the district.

11. Integration of public health care services in Bothaville

All fifteen respondents participated in the last section of this interview. All the respondents felt that it would be possible to integrate all the public health care components (hospital, district surgeon services, fixed clinics and mobile clinic services) in Bothaville and Kgotsong into a centrally managed service. Respondents were asked to suggest ways in which integration in the health services could be accomplished. Two of the respondents were uncertain. The suggestions made by the rest included:

- Integration of services is definitely needed and care should be taken to ensure careful negotiation and planning to precede such an integration process (n=3).
- There should be one person managing all the public health services in Bothaville and Kgotsong and the service conditions of the professional nurses should be standardised (n=3).
- The Department of Health should fund all the health services in Bothaville and Kgotsong, and one health services manager should be appointed by the Department of Health to manage all health services. This person should be well remunerated (n=2).
- The provincial Department of Health should manage all the health services (n=2).

- Services should be integrated under one management, either under the Local Authority or the Department of Health (n=1).
- One able person should manage all the public health services in Bothaville and Kgotsong and every division should have a professional nurse managing the division (n=1).
- All the services should fall under the management of the Local Authority and one professional nurse should manage the services (n=1).

Factors hampering such an integration include the following:

- Internal policies, procedures and benefits of the Local Authority and the Department of Health employees differ tremendously and it could prove a problem to standardise these (n=5).
- A power play between the Local Authority and the Department of Health might be a hampering factor; everyone wants to be in charge and everyone is trying to protect their own interests (n=2).
- It seems that the Local Authority is clinging to its independence at this stage because of financial considerations (n=1).
- All the personnel are not willing to cooperate, and communication between health services in this town is in a sorry state (n=1).
- The hospital seems unwilling to cooperate with some of the public health services. They are very difficult to work with, especially the matron (n=1).

Five of the respondents did not respond to the question.

Regarding the advantages of an integrated service in Bothaville and Kgotsong for health care personnel, the following were mentioned:

- Standardised regulations, executed by one public health care manager, will apply to all the public health care personnel. Service conditions and remuneration of personnel will be standardised. This will eliminate numerous practical problems currently experienced and personnel will be more willing to cooperate (n=5).
- At present the public health care system in Bothaville is fragmented. There will be more control over the entire system if it is integrated (n=3).
- One manager will be in charge of all the personnel which will ensure better communication among personnel and continuity among services (n=2).
- The health care system will be simplified and not be as clumsy as it is at the moment (n=2).
- It will be easy to rotate personnel to positions where they are needed most. In the system as it is, this is very difficult because Local Authority personnel and personnel employed by the Free State Department of Health work under different regulations (n=2).
- Conflict and jealousy among the personnel will definitely decline and communication and cooperation will improve, because numerous problems related to these two factors are caused by personnel operating under different regulations (n=2).

Respondents were asked what advantages an integrated system would have for the patients using the system.

- Services, especially clinic services, will be more accessible to patients, since they will be able to go to any service and not be sent away. Patients from farms are at this stage sent away from municipal clinics to the primary health care clinic in town or told to go to the mobile clinics on the farms, because these two service divisions operate under different management structures (n=5).

- The attitude of personnel towards their work will be more positive if conflict among them is resolved (which will certainly happen when services are integrated) and this will improve services (n=1).
- Continuity of services will improve. Patients would not feel that they are cared for by primary health care or Local Authority services anymore, they will be cared for by one health care service in Bothaville or Kgotsong (n=1).
- Standardised information and regulations will apply. This will eliminate confusion among patients (n=1).

Two of the respondents specified that the integration of health services should also mean that all the public health services are moved to one physical structure. These respondents indicated that such a physical integration would mean that patients would not have to be sent from one location to another and this will save time.

Five of the respondents were uncertain about how to answer the question.

The ideal organisational authority structure of such an integrated service was described as follows:

- The Local Authority should manage all the public health care services in Bothaville and Kgotsong. There is nobody in Bothaville or Kgotsong who could lead the services at the moment, therefore a person from outside should be appointed as head of the services (n=3).
- One assertive and authoritative manager should be appointed over the public health services in Bothaville. This manager should be someone who knows the unique problems in the Bothaville health care services (n=2).
- One manager should be appointed as head of public health services. This person should know the health services in the district (n=2).
- The Free State Department of Health should take over all the services and appoint one person to manage it (n=1).
- Only one person should manage all the public health services in Bothaville and Kgotsong and this person should be elected democratically. It should be a person who knows the services and who has authority over the personnel employed in the services (n=1).
- There should be one integrated management system in existence which could execute firm control over the system (n=1).
- One manager should be appointed over all the public health care services with professional nurses managing the sub-divisions (n=1).
- One person from the Local Authority should manage the health care services in Bothaville and Kgotsong. The Local Authority is well organised, the Department of Health is very disorganised (n=1).
- One responsible person should manage all the health care services. This person should know how to manage health services and should know the medical field (n=1).
- The hospital should be in charge of all the health care services in Bothaville. This will promote easy communication between the services (n=1).
- One professional nurse, with a strong assertive personality should manage all the public health care services in Bothaville and Kgotsong (n=1).

As could be derived from the descriptions of an ideal health care organisational structure for public health services in Bothaville and Kgotsong, several respondents strongly felt that there should be one manager for all the health care services.

All the respondents (n=15) indicated being aware of the co-ordinating forum for health services in Bothaville. Four of the respondents indicated that the function of this forum is to improve communication among the public health care services in Bothaville and Kgotsong, while another eight indicated the function is to solve problems experienced in the services and between the personnel. One of the doctors indicated that he had only attended a forum meeting once and therefore could not tell what the function of it is, while the other two doctors indicated not having had time to go to the meetings and therefore did not know what the function of the forum is.

Seven of the respondents indicated that they believe that the forum is fulfilling its function and two respondents, those two who never attended the meetings, did not know. Six of the respondents suggested that the forum is not fulfilling its function. These six respondents gave the following reasons for their answers:

- The representatives of the different health care services use the forum to try and solve their personal differences (n=3).
- The original function of the forum, as it was intended by the Provincial Department of Health (to solve problems among personnel and services and to improve communication among the services), is not being fulfilled, because the only thing happening in the meetings is that personnel are shifted between the services (n=1).
- The division between Local Authority personnel and Department of Health personnel is still persisting despite the effort of the forum (n=1).
- The forum is not going to solve the problems. The only thing that would, is integration of all the public health care services in Bothaville and Kgotsong (n=1).

12. Main findings and discussion

Much the same structural and organisational problems mentioned in the previous empirical chapters also surfaced among the respondents interviewed in this part of the study. This included problems related to communication and cooperation among services, mostly as a result of fragmentation caused by the fact that services are run by different authorities. Respondents mostly agreed that all public services should be managed centrally under one authority. Some preferred this authority to be the Department of Health and others, the Local Authority. This means that services will have to be integrated. The two most important obstacles in the way of successful integration were indicated to be the integration and standardisation of internal policies, procedures and benefits of Local Authority and the Department of Health. Some of the respondents further feared, as an obstacle to integration, a power struggle between the Local Authority and the Department of Health since the two parties would certainly both want to be in charge of health and therefore protect their own interests. This is again much the same responses as were obtained from the professional nurses working on the mobile clinics.

Advantages of an integrated system would be numerous for public health personnel and clients of the services. Most important advantages for personnel included that standardised regulations, remuneration packages and service conditions would eliminate practical problems currently experienced among different services, for instance the rotation of personnel between different services when it was needed. Personnel would also be more willing to cooperate with one another. At the time of the study there were problems in this regard, as the same posts in the different services are not paid the same salaries, nor do they receive the same benefits or

work under the same regulations. This causes jealousy and problems among staff, which in turn hampers communication. A further important advantage of an integrated system, is that such a system would be easier to control and better continuity between services throughout the system would prevail.

Among the advantages mentioned for the clients of the services, the most important ones included better accessibility because patients would not be sent from one service to another. At the time of the study rural clients were sent away from municipal clinics to the provincial Department of Health clinic in town because Local Authority facilities defined rural clients to be the responsibility of the Department of Health. The services rendered to clients will most certainly improve if conflicts caused by the fragmented system among personnel were to be resolved. This would probably be the case when integration of services has occurred. Lastly, confusion among patients would be eliminated, because the same regulations will be in place at all services and continuity will be improved.

Numerous issues were raised regarding problems concerning mobile health care in the area. The most important of which again pertained to the problems of communication and fragmentation. Additional issues were the conflict among the professional nurses, that the mobile services cannot reach all rural clients, and that too few health care personnel work on the mobiles to serve the entire rural community.

A number of respondents felt that the mobile nurses did not adequately plan the new mobile clinic point system and substantiated this view with two main reasons: numerous confused (about new system) clients were still encountered and by the time that most of the clients had heard about the change in the system it had already been implemented without consulting them. The change was not adequately communicated to the municipal clinics which left them ill prepared for the rural patient load during the time when mobile clinics ceased to operate while the new system was being planned.

The views of the respondents were also explored with regard to the old and the new mobile clinic systems and the advantages and disadvantages pertaining to both systems. Half of the respondents indicated that there were no advantages to the previous system. The most important advantages mentioned by the remaining respondents were that more people were reached by the old system, because the nurses travelled to each farm. However, it was especially older people and children in need of immunisation (those who travel with difficulty, as was found in the previous chapter as well) who were more often reached. The main shortcomings of the previous system mentioned here were very much the same as those in the previous two chapters, namely that patients did not know when the mobiles would visit their farm and that mobiles did not visit farms often enough. Further important problems identified in this regard mostly pertained to the amount of travelling that had to be done to reach all the farms and included the strain it put on the nurses, the cost ineffectiveness thereof (large amounts of fuel were used to reach one or two clients on a faraway farm) and precious consultation time which was spent on travelling between the farms. Some of the respondents were of the opinion that important problems that were found in the previous system were solved with the implementation of the new system. There are now set dates according to which the mobile clinics operate on certain farms, mobiles reach all the points once a month, and therefore more regularly than in the past and professional nurses work in teams which makes it easier to see more patients in a shorter space of time. Therefore more patients are reached. Furthermore, the cost effectiveness

of the new system has improved significantly because less travelling is done to small farms with only a few people living on them. Nurses can spend more time in consultation with patients and less on the road. More secondary advantages of the new system include the relief in workload at municipal clinics in Bothaville and Kgotsong, as the findings of the previous chapter also mentioned, as a result of the mobiles visiting points on a more regular basis now and chronic medication can be obtained at the mobiles and not only at the clinics in town.

The main disadvantage according to the respondents of this part of the study was transport difficulties experienced by patients living on farms without mobile visiting points. As this was discussed in detail in previous chapters it is not deemed necessary to discuss it again. Most patients also have trouble reaching town after being referred, as was also the case according to the farm school teachers and the mobile clinic nurses. Another problem that surfaced was the fact that chronic medication is now taken to farms on a monthly basis, therefore a doctor is not able to monitor the condition of rural chronic clients on a regular basis. The monitoring of chronic patients is not part of the service delivery jurisdiction of the professional nurse. This was indicated by the doctors to be a very serious problem indeed.

When looking at the advantages of the new system and all the problems that were overcome as a result of the implementation thereof, it would definitely seem that it is for the better for clients and for mobile health care personnel, were it not for the very serious problem of transport difficulties experienced by patients living on farms without visiting points. Health managers will have to sit down and carefully weigh up the advantages of the new system against this serious problem of transportation The best solution will probably be to address the transportation problem in the rural areas by devoting serious effort to try and obtain cooperation from all the farmers involved, or establishing a government sponsored transportation system from farms without visiting points to those with them.

Despite the obvious advantages of the new system for health care personnel and clients, the transportation issue should not be ignored as it is seriously detrimental to the accessibility of rural health services as it operated in the area at the time of the study.

It is noteworthy that the vast majority of the respondents in this part of the study indicated that it is common practice among farmers to take their workers to health services in town rather than allowing them to attend the mobile services on the farms. This was also mentioned by the mobile clinic nurses. It should again be noted, as one of the possible reasons why a lower than expected number of rural dwellers sampled for this study used the mobile services on farms. Reasons mentioned for this practice included that it saves production time because the workers are helped faster by the doctors in town than having to wait for, travel to and wait at the mobile clinics. Another reason given was that it is easier for farmers to maintain contact with the doctors and it is easier to build rapport with them and therefore to obtain feedback about the health conditions of their workers. This is difficult with mobile nurses, as they are on the move most of the time. Other reasons for farmers bringing their workers to town included that farm workers or their families frequently fall ill between visits of the mobile clinics. Farmers have to bring such people to town facilities. The hospital personnel indicated that numerous farmers are not knowledgeable of how the public health system operates and just bring their workers to hospital, sometimes even for minor ailments and frequently they expect the hospital to admit patients until they can come to town again to pick them up again. A further such anomaly was mentioned by the emergency services personnel, farmers sometimes phone the ambulance to fetch an ill

patient and when they get there, it is frequently for a minor ailment. This is expensive for the Department of Health and the best way to solve it would be to inform farmers more thoroughly on the public health service and how it operates.

Most of the respondents indicated that they have a satisfactory relationship with the nurses working on the mobile clinics, although some of them indicated that they did experience problems in the past. More important was the conflict among the mobile clinic nurses themselves. They regarded this as important, because this conflict has a negative influence on the mobile clinic service, the other public service in the district, and cooperation between all the services. As a result it is very difficult to work with the mobile nurses as a team and there is no team spirit or teamwork between the mobile clinic nurses. This was one of the most important areas that needs attention for an improvement to occur in the mobile clinic service. Other important factors included that more staff should be appointed to serve the rural community of Bothaville. More mobile units, in a better working condition (the vehicles apparently broke down quite often, this was not mentioned to be a particular problem by the nurses working on the mobiles though) were also needed. According to the respondents the mobile staff corps was too small and the vehicles too few and unreliable to serve the rural area in its entirety.

Chapter 8

IMPORTANT RECOMMENDATIONS AND CONCLUSION

1. Introduction

This chapter presents the most important recommendations that were derived from this study; the conclusion; and a report on the information dissemination workshop that was held with health workers, managers, governors and the ISDS in Bothaville and Tshepo, to inform them about the findings of the research.

The recommendations and conclusion are brief, as each empirical chapter concluded with a lengthy discussion in which conclusions were drawn and recommendations made. Therefore, only the most important recommendations are presented in this chapter.

The most important conclusion drawn from the study is that more than half of the rural dwellers never made use of mobile health services. The two main hampering factors in this regard, were identified to be a lack of transportation, which pertains especiallyto those clients living on farms that do not serve as stopping points, and inadequate dissemination of information to clients in the rural areas.

2. Recommendations

2.1. Accessibility and transport

Numerous people living on farms without mobile stopping points, reportedly experienced transportation problems to the mobile points. It was especially the elderly, very young and very ill who experienced such problems, as a number of them had to walk to the visiting point closest to them. Needless to say, this substantially hampered the accessibility of mobile clinic services to these vulnerable groups. In the old mobile clinic system, all farms were visited. Therefore, the problem did not exist. It could be concluded that the newly implemented visiting point system is less user-friendly and geographically accessible than the previous one.

Solutions to this problem need to be identified. Recommendations in this regard include better cooperation with farmers and efforts to promote their involvement in rural health. In this way, farmers might assist in the transportation of more clients to stopping points. Although farmers could play a significant role in this regard, it is not necessarily the only solution. Transporting two to four hundred farm workers (labour intensive crop farms) to mobile stopping points would prove to be problematic for any farmer. Alternative solutions would have to be explored. Such solutions could include the possibility of transportation services between farms, co-inciding with mobile visiting dates, and transport contractors employed by the state. Solutions will best be found within the rural and the farm owner communities, together with the Department

of Health. The fact is, a stronger transportation infrastructure in rural areas would need to be established in order to render more accessible mobile services.

2.2. Information dissemination and community participation

Apart from the fact that information was not well disseminated before the new mobile clinic system was implemented, once it was operational, information regarding visiting point time schedules and other additional information aimed at rural clients was still not adequately distributed. It was also apparent from the data gathered among rural dwellers, that more than half of the respondents were not even aware of the implementation of a new mobile clinic system in the area, even though the new system had been operational already for more than five months. An important recommendation, therefore, is that urgent steps needed to be taken in developing a more effective and efficient system, with a formalised strategy to disseminate information to the rural community.

Furthermore, it was also found that there was a lack of community participation, specifically from the rural area in this sub-district. No mobile clinic client was consulted prior to the planning or implementation of the new system, nor was there any structure to facilitate rural community governance of health care. The new system was simply implemented without a process of consultation with any clients. The only parties consulted were the Department of Health, health workers on the mobile clinics and farm owners in the district. The recommendation stemming from this is that active community involvement and participation in rural health is direly needed in the Bothaville sub-district. One of the principles of health policy in this country is that communities should play a definite and active role in the governance of their own health affairs, and in this case, there was no such involvement. With the guided involvement of the rural community in the governance of their own health affairs, they would probably learn to take more responsibility for own health care, and might emerge with creative solutions to many of the problems experienced with regard to the new system. It is possible that rural users of the mobile clinics have, at this stage, a passive, receiving attitude towards health care, by involving them they could take a more active stance and feel responsible for providing input through their role as governors.

Apart from these two main recommendations flowing from the study, four other important recommendations were also deemed important enough to be highlighted in this chapter.

2.3. Promoting PHC

PHC is not only for those who are ill. It serves a promotive and preventive function through health education. The fact that less than half of the rural dwellers interviewed ever utilised mobile health services, is an indication that both farmers and rural dwellers do not sufficiently realise the importance and scope of PHC. This conclusion is supported by the finding that not even a third of rural dwellers had their blood pressure taken during the past year. In addition, nearly two thirds of respondents did not use any form of contraception at the time of the study. Prevention and promotion of health through health education are important dimensions of PHC. Close cooperation with farmers needs to be established in order to launch an extensive campaign to bring the importance of PHC services, in its entire scope, to the attention of all rural dwellers. It is of great concern that, of the 51% of respondents who ever visited a mobile clinic, only a third received health education. The personnel working on mobile clinics indicated that they have very

limited time and that health education suffers as a result of an incredibly high patient load. In other words, the service that they render is mainly curative. This is a concern, and health managers and governors would have to find a way for this situation to be resolved.

2.4. Lack of integration, communication and feedback

Health care providers experienced a lack of communication among the different health services. This resulted, in among other things, the duplication of prescriptions and a notable inability to keep record of individual patients. Little or no feedback was received on referrals made to doctors, hospitals and even other clinics. It is therefore suggested that an optimal feedback system be established between the different health services. One suggestion is that a standardised system of "patient held cards" or "carry cards" be introduced at all health services. A computerised system that links all services in the district, or even in the province, with one another, would be the ultimate system to optimise communication and cooperation among services. This would prove to be expensive, even unaffordable, in terms of equipment and personnel training.

Health care providers agreed that an integrated health service in the sub-district was possible and urgently needed. One authority should prevail and standardised service conditions, regulations and benefits should apply to all health care providers. Such an integrated health care service is imperative for the optimal functioning of the Bothaville sub-district health care system.

2.5. Conflict among health staff

Many health care providers emphasised the existence of conflict among Bothaville's health care personnel. Although some steps have been taken to address this problem (one being the establishment of the coordination committee), little progress has been made. In addition, the fragmented nature of health services contributes to this problem. The majority health care providers stated that an integrated health service would be the only solution.

It is difficult, however, to comment on the conflict among the professional nurses operating the mobile health clinics. The researcher can only report that the problem needs urgent attention. Since these professional nurses provide health services to Bothaville's rural community, efficient communication and good working relationships are imperative. This conflict, if not resolved, could prove detrimental to the efficiency and quality of services rendered. Group counselling or other conflict resolution strategies should seriously be considered.

2.6. Appreciation for mobile services

Mobile clinic users displayed a positive attitude towards mobile health care despite all the problems that were identified by the survey. The vast majority of them were generally satisfied with the treatment and medication they received from the mobile clinics, as well as the way in which the professional nurses treated them and communicated with them. They furthermore appreciated health services being brought closer to them, and that these services were free. These very positive responses provide a firm foundation for the improvement of problems areas in the mobile health care system, as services are already well appreciated.

3. Dissemination of the study results and conclusion

A one day workshop was held in Bothaville in order to disseminate the main results of the study, in an open and user-friendly manner, to stakeholders involved. The objective of the workshop was to promote a clear understanding of the situation, the problems and possible solutions. It was further recommended, during the workshop, that appropriate intervention strategies based on the findings and recommendations of the study should be formulated by all relevant stakeholders and role players in the Bothaville public health system, to improve the provision of health care to the rural community.

In conclusion, the researcher is confident that the results of this study present ample analyses and sufficient information, on the general living situation and that of health and health care of rural dwellers in the Bothaville district, to facilitate the improvement of rural health services rendered and to aid with the implementation of the DHS in the district. With regard to the main aim of the study, I have to believe that it was generously met.

LIST OF SOURCES

Abbott G. 1997. Upgrading health facilities. In *South African Health Review 1997.* Durban: HST, pp. 119-127.

African National Congress. 1994a. *The reconstruction and development programme.* Cape Town. ANC.

African National Congress. 1994b. *A national health plan for South Africa.* Johannesburg: ANC.

Barron P, Strachan K & Ijsselmuiden C. 1997. The year in review. In *South African Health Review 1997.* Durban: HST, pp. xvii-xxiii.

Barron P. 1998. Equity in 1998: An overview. In *South African Health Review 1998.* Durban: HST, pp. 1-6.

Begg K. 1997. Pawns or participants? Compulsory community service. *Indicator SA* 14 (1): 65.

Benatar SR. 1997. Health care reform in the new South Africa. *New England Journal of Medicine* 77: 441-447.

Beselaar M. 1989. *Sosiologiese analise van die gesondheidsorgdebat in Suid-Afrika: Die staat versus die mark.* Unpublished M.Soc.Sc. dissertation. Bloemfontein: University of the Orange Free State.

Burrows EH. 1958. *A history of medicine in South Africa up to the end of the nineteenth century.* Cape Town: AA Balkema.

Buthelezi C, Barron P, Makhanya N & Edwards-Miller J. 1997. Measuring the move towards equity from the site of service delivery. In *South African Health Review 1997.* Durban: HST, pp. vii-xvi.

Central Statistical Service. 1997. *October household survey 1995.* Pretoria: Government Printer.

Chao M. 1998. *Situation analysis of the Bothaville sub-district*: Unpublished report. Cape Town: ISDS.

Crisp N. 1997. Standards, sophistication and quality: The health balancing act. *Indicator SA* 14 (1): 46.

Daily register data. 1998. Bothaville mobile clinic service.

De Beer C. 1985. Explaining the present: Why health services do not meet the health needs of the population. In Zwi AB & Saunders LD (*Eds.*). 1985. *Towards health care for all.* Johannesburg: NAMDA, pp. 56-60.

De Beer C. 1988. Picking up the pieces – the present and future consequences of the fragmentation of South Africa's health care structures. Owen CP (*Eds.*). In *Towards a national health service,* pp. 69-78.

De Beer C, Buch E & Mavrandonis J. 1988. *Fragmentation and political disorganisation of health care in South Africa.* Johannesburg: Centre for the Study of Health Policy (Wits) pp. 33-58.

Demographic Information Bureau. 1998. (Development Bank of Southern Africa) Socio-economic database for the five magisterial districts: Boshof, Bothaville, Bultfontein, Hoopstad and Wesselsbron.

Department of Health. 1996a. *Annual Report 1995.* Pretoria: Department of Health.

Department of Health. 1996b. *Restructuring the national health system for universal primary health care.* Pretoria: Department of Health.

Department of Health. 1997a. *White paper for the transformation of the health system in South Africa (Notice 667 of 1997). Government Gazette 16 April 1997, 382 (17910).* Pretoria: Government Printer.

Department of Health. 1997b. *National Health Bill (10th draft).* Pretoria: Department of Health.

Department of Health. 1997c. *Report of the National Portfolio Committee on Health.* Pretoria: Department of Health.

Engelbrecht B. 1997. Provincial report: Lessons from the Free State. *DHS News* 2 (2): 2.

Field I. 1999. Poverty, human rights and health. In *South African Health Review 1999.* Durban: HST, pp. 1-12.

Floyd L. 1997. HIV/AIDS. In *South African Health Review 1997.* Durban: HST, pp. 187-196.

Free State Department of Health. 1998. *Implementing a district-based health care system in the Free State: A framework for a district health authority.* Bloemfontein: Free State Provincial Government.

Gaigher MJ. 1998. Doing better but feeling worse: South African health care in transition. In Santana P (*coord.*). Health and health care in transition. *Proceedings of the annual conference of the International Geographical Union* (Commission on Health, Environment and Development), Coimbra (Portugal), 24-28 August 1998. Coimbra: IGU-HED, 1998: pp. 41-51.

Gluckman Commission. 1944. *Report of the National Health Services Commission.* Pretoria: Government Printer.

Harrison D. 1996. Saving the system: Making primary health care work. *Indicator SA* 14 (1): 22-25.

Health Systems Trust. 1997. *A pocket guide to district health care in South Africa.* Durban: HST.

Health Systems Trust. 1996. *Health care in the Free State: Implications for planning.* Durban: HST.

Health Systems Trust. 1995. *South African Health Review 1995.* Durban: HST.

Health Systems Trust. 1996. *South African Health Review 1996.* Durban: HST.

Health Systems Trust. 1997. *South African Health Review 1997.* Durban: HST.

Health Systems Trust. 1998. *South African Health Review 1998.* Durban: HST.

Health Systems Trust. 1999. *South African Health Review 1999.* Durban: HST.

Health Systems Trust. 1999. Health and related indicators. In *South African Health Review 1999.* Durban: HST, pp. 399-408.

Initiative for Sub-district Support (ISDS). 1996. *Initiative for Sub-district Support: Technical report no. 1.* Durban: HST–ISDS.

Initiative from Sub-district Support (ISDS). 1998. *The development of the district health system in South Africa - Lessons learnt from the experience from the ISDS: Technical report no. 5.* Durban: HST/ISDS.

Initiative for Sub-district Support (ISDS). 1997. *Supplement to HST Update.* September. Durban: HST-ISDS.

Jacobs M, Wigton A, Makhanya N & Ngcobo B. 1997. Maternal, child and women's health. In *South African Health Review 1997.* Durban: HST, pp. 139-152.

Janse van Rensburg E. 1998. Sub-district development in South Africa: Transition of health care at grassroots level. In Santana P (*coord.*). Health and health care in transition. *Proceedings of the annual conference of the International Geographical Union* (Commission on Health Environment and Development), Coimbra (Portugal), 24-28 August 1998. Coimbra: IGU-HED, pp. 157-170.

Kortenhout E. 1998. Production of nurses in South Africa. In *South African Health Review 1998.* Durban: HST, pp. 51-62.

Laidler PW & Gelfand M. 1971. *South Africa: Its medical history 1652-1898 – a medical and social study.* Cape Town: Struik.

Levendal E, Lapinsky S & Mametja D. 1997. Community involvement in health. In *South African Health Review.* Durban: HST, pp. 129-135.

Loots I & Vermaak M. 1975. *Pioneers in professional nursing in South Africa.* Bloemfontein: PJ de Villiers.

Makan B. 1998. Distribution of health personnel. In *South African Health Review 1998.* Durban: HST, pp. 63–82.

Mametja D & Reid S. 1996. Human resources. In *South African Health Review 1996.* Durban: HST, pp. 85-98.

McCoy D & Barron P. 1996. *Free health care for pregnant women and children under six in South Africa: An impact assessment.* Durban: HST.

McCoy D & Engelbrecht B. 1999. Establishing the District Health System. In *South African Health Review 1999.* Durban: HST, pp. 131-146.

McCoy D & Khosa S. 1996. "Free health care" policies. In *South African Health Review 1996.* Durban: HST, pp. 157-164.

McCusker I. 1997. Policy at a price: Primary health care dilemmas. *Indicator SA* 14 (1): 27.

Mellish JM. 1985. *'n Elementêre geskiedenis van verpleegkunde.* Durban: Butterworth.

Ministry of Provincial Affairs and Constitutional Development. 1998. *White Paper on Local Government.* Pretoria: CTP Printer.

Moomal H & Edwards-Miller J. 1998. Production of doctors in South Africa. In *South African Health Review 1998.* Durban: HST, pp. 45-50.

Naidoo S. 1997. Local government in the move to a district health system. In *South African Health Review 1997.* Durban: HST, pp. 53-58.

Owen CP (*Eds.*). 1988. *Towards a national health service*. Cape Town: NAMDA.

Owen CP. 1995. *A policy for the development of a district health system for South Africa*. Pretoria: Health Policy Coordinating Unit.

Price M. 1986. Health care as an instrument of apartheid policy in South Africa. *Health Policy and Planning* 1 (2): 158-170.

Republic of South Africa (RSA). 1996. *The Constitution of the Republic of South Africa*. Pretoria: Government Printer.

Rob D, Annadale de Villiers M & Vallabjee K. 1997. Provincial restructuring. In *South African Health Review 1997*. Durban: HST, pp. 45-51.

Ruff B. 1997. Hospital restructuring. In *South African Health Review* 1997. Durban: HST, pp. 59-80.

Santana P (*coord.*). 1998. *Health and health care in transition*. Proceedings of the annual conference of the International Geographical Union (Commission on Health Environment and Development), Coimbra (Portugal), 24-28 August 1998. Coimbra: IGU-HED.

Searle C. 1965. *The history of the development of nursing in South Africa. 1652-1960. A socio-historical survey*. Cape Town: Struik.

Sharp B, Martin C, Nawn J, Curtis B, Boulle A & Le Sueur D. 1998. *A collation of the current health boundary and facility data for South Africa*. Durban: MRC.

Smith J & Niedermeier L. 1997. Heading for disaster? Southern Africa's ills. *Indicator SA* 14 (1): 88.

South African Institute of Race Relations (SAIRR). 1995. *South Africa Survey 1994/95*. Johannesburg: South African Institute of Race Relations.

South African Institute of Race Relations (SAIRR). 1997. *South Africa Survey 1996/97*. Johannesburg: South African Institute of Race Relations.

Stuurman-Moleleki J, Sait L & Long P. 1997. Health legislation. In *South African Health Review 1997*. Durban: HST, pp. 29-35.

Ticksheet data. 1997. Free State Department of Health: Information Directorate - Specialised Services.

Van den Heever AM & Brijlal V. 1997. Health care financing. In *South African Health Review 1997*. Durban: HST, pp. 81-89.

Van Niekerk R & Sanders DM. 1997. Human resource development for health. In *South African Health Review 1997*. Durban: HST, pp. 91-98.

Van Rensburg HCJ. 1991. South African health care in change. *South African Journal of Sociology* 22 (1): 1-10.

Van Rensburg HCJ. 1998. Health and health care in South Africa in transition: A macro perspective. In Santana P (*coord.*). Health and health care in transition. *Proceedings of the annual conference of the International Geographical Union* (Commission on Health Environment and Development), Coimbra (Portugal), 24-28 August 1998. Coimbra: IGU-HED, pp. 171-187.

Van Rensburg HCJ. 1999. Health and health care in South Africa in transition: A macro perspective. *Acta Academica* 31 (1): 1-26.

Van Rensburg HCJ & Benatar SR. 1993. The legacy of apartheid in health and health care. *South African Journal of Sociology* 24 (4): 99-111.

Van Rensburg HC & Harrison D. 1995. History of Health Policy. In *South African Health Review 1995*. Durban: HST, pp. 53-73.

Van Rensburg HCJ & Mans A. 1982. *Profile of disease and health care in South Africa*. Pretoria: Academica.

Van Rensburg D, O'Brien M, Steyn F, Van Rensburg E & Matebesi Z. 1998a. *The health of Tshepo: A guide for managers and governors*. Durban: HST-ISDS.

Van Rensburg D, O'Brien M, Steyn F, Van Rensburg E & Matebesi Z. 1998b. *The health of Tshepo: A guide for managers and governors*. Unpublished report. Centre for Health Systems Research & Development.

Van Rensburg HCJ, Pretorius E & Fourie A. 1992. *Health care in South Africa: Structure and dynamics*. Pretoria: Academica.

Whiteford A, Postel D & Kelatwang T. 1995. *A profile of poverty, inequality and human development in South Africa*. Pretoria: Human Sciences Research Council.

Wildavski A. 1977. Doing better but feeling worse: The political pathology of health. *Daedalus*. 1977, 106 (1): 105-123.

Wolvardt G & Palmer N. 1997. Private sector. In *South African Health Review 1997*. Durban: HST, pp. 37-44.

Zwi AB & Saunders LD (*Eds.*) 1985. *Towards health care for all*. Johannesburg: NAMDA.

SUMMARY / OPSOMMING

The master plan according to which the ANC government envisages to achieve transformation in the South African health care system, is the implementation of a National Health System (NHS), based on a District Health System (DHS) model, with the primary health care (PHC) policy as its foundation. In the process of implementing the DHS, an important challenge has emerged, that is, to translate provincial policy and administrative reorganisation into real improvements in health care delivery at local level. In order to address this challenge at grassroots level, a pilot programme of "bottom-up" support to a selected number of health districts in the country was introduced, i.e. the Initiative for Sub-district Support (ISDS). One of the pilot sites selected for this support programme, is the Bothaville sub-district, which is the geographical location of this study.

The study was primarily conducted to supply health care managers and governors concerned with the Bothaville sub-district with needed information on the conditions of the farm community and the delivery of health care. This information should enable them to improve the delivery of PHC and facilitate the implementation of the DHS. This is done by providing a broad explanation of development of the South African health care system with particular focus on policy and organisation; general background information on the Bothaville sub-district; a profile of mobile clinic services; an evaluation of the current system of mobile clinic health care; an explanation of the differences between the previous and the new system (implemented approximately five months prior to the survey); baseline information on the rural community and their health status; and an assessment of the perceptions of health care providers concerning aspects of health care delivery.

The overall design of the study is exploratory and descriptive. It consists of a literature study and empirical data. The literature study was conducted to contextualise the Bothaville sub-district within the ISDS and the broader South African health care context. The empirical study consisted of a combination of qualitative and quantitative methods of data gathering, i.e. a survey among a sample of rural dwellers and interviews conducted among farm school teachers, the professional nurses working on the mobile clinics, and general health care personnel in Bothaville.

The main findings of the empirical part of the study include: more than half of the rural dwellers interviewed had never made use of the mobile clinics; information is inadequately disseminated to rural clients; transportation difficulties to mobile visiting points in the new system is a serious constraint; there is a lack of community participation in rural health matters; the promotive and preventative functions of PHC are lacking; a lack of communication and cooperation exist among the different public health services; conflict among health care personnel is rife; integration of services would solve numerous problems; and users of the mobile clinic services are generally satisfied with all aspects of mobile clinic services and appreciate the services.

The main recommendations comprise: additional modes of transport for rural dwellers need to be provided; a more effective information dissemination strategy to rural clients is needed; the rural community need to be actively involved in health matters; more emphasis needs to be placed on the preventative and promotive dimensions of PHC; communication and cooperation among public health care workers in the area need improvement; and all the public health care services need to be integrated under one authority.

In conclusion, the researcher is confident that the results of the study would supply health workers, managers and governors with ample information to optimise health care rendered to rural dwellers in the area, as well as to assist with the implementation of the DHS.

Die breë beleid waarvolgens die ANC regering hervorming in die Suid-Afrikaanse gesondheidsorgsisteem teweeg wil bring, is dié van 'n Nasionale Gesondheidsisteem, gebaseer op 'n Distriks-gesondheidsisteemmodel, met die primêre gesondheidsorgbeleid as grondslag. Die implementering van die Distriks-gesondheidsorgmodel het 'n formidabele uitdaging teweeggebring, en dit is die oorsetting van provinsiale beleid en administratiewe herorganisasie van gesondheidsorg na 'n werklike verbetering van gesondheidsorg. Om hierdie uitdaging op grondvlak aan te spreek, is 'n loodsprogram van grondvlak-ondersteuning in sommige gesondheidsdistrikte in die land van stapel gestuur. Dit word die Inisiatief vir Sub-distrik Ondersteuning (ISDO) genoem. Een van die loodsdistrikte vir hierdie program geselekteer, is Bothaville, waar hierdie studie gedoen is.

Die studie is hoofsaaklik onderneem om gesondheidsorgbestuurders en –reëlaars van nodige inligting in verband met die lewering van primêre gesondheidsorgsdienste aan die landelike gemeenskappe in die Bothaville distrik, te voorsien, en hulle op hierdie manier in staat te stel om die dienste te optimaliseer en die implementering van die Distriks-gesondheidsisteem, beter te fasiliteer. Die ontplooiing van die studie soos in hierdie dokument vervat sluit inligting in verband met die volgende onderwerpe in: die ontwikkeling van die Suid-Afrikaanse gesondheidsisteem, agtergrondsinligting aangaande die Bothaville sub-distrik; 'n profiel van mobiele kliniekdienste, die evaluering van die mobiele kliniekdienste, die identifisering van verskille tussen die vorige en nuwe sisteme van dienslewering ('n nuwe sisteem van landelike dienslewering is ongeveer vyf maande voor die studie onderneem is, geïmplementeer in die area); die insameling van algemene basiese en gesondheids- en gesondheidsorgverwante inligting onder die landelike gemeenskap van Bothaville; en 'n ondersoek na die persepsies van publieke gesondheidsorgpersoneel oor sekere aspekte van gesondheidsorgdienslewering.

Die studie is beskrywend en verkennend van aard en bestaan uit 'n literatuurstudie en 'n empiriese gedeelte. Die literatuurstudie is ter kontekstualisering van die Bothaville sub-distrik, as deel van die Suid-Afrikaanse gesondheidsorgsisteem en die ISDO, onderneem. Die empiriese studie bestaan uit 'n kombinasie van kwalitatiewe en kwantitatiewe data-insamelingstegnieke. Vier steekproewe is vir data-insameling getrek, naamlik onder: landelike gemeenskapslede; plaasskool onderwysers/onderwyseresse; personeel verwant aan die mobiele klinieke; asook ander personeel wat deel is van die publieke gesondheidsorgsisteem in Bothaville.

Die belangrikste bevindinge van die studie sluit die volgende in: meer as die helfte van landelike respondente het nog nooit van 'n mobiele kliniek se dienste gebruik gemaak nie; inligting in verband met gesondheidsdienste word nie effektief na landelike kliënte versprei nie; vervoerprobleme na punte waar mobiele klinieke stop is 'n ernstige probleem vir die landelike gemeenskap; die landelike gemeenskap is nie genoegsaam aktief betrokke by die reëling van gesondheidsake in die distrik nie; die voorkomende en bevorderende dimensies van primêre gesondheidsorg geniet nie genoeg aandag in die lewering van landelike gesondheidsdienste nie; daar is 'n tekort aan samewerking en kommunikasie tussen publieke gesondheidsdienste; konflik is 'n gereelde verskynsel tussen gesondheidspersoneel in Bothaville; die integrasie van publieke gesondheidsdienste kan van hierdie probleme oplos; en gebruikers van die mobiele kliniekdienste het aangedui dat hulle tevrede is met die meeste aspekte van diens wat julle van die mobiele klinieke ontvang.

Die belangrikste aanbevelings sluit die volgende in: bykomende vervoermiddele moet aan landelike gemeenskappe verskaf word sodat punte bereik kan word; die landelike gemeenskap behoort aktief betrek te word by die reëling van publieke gesondheidsdienste; die voorkomende en bevorderende dimensies van primêre gesondheidsorg behoort meer aandag te geniet; kommunkasie en samewerking tussen die verskillende publieke gesondienste in Bothaville behoort verbeter te word; en alle publieke gesondheidsdienste behoort onder een beheerliggaam geïntegreer te word.

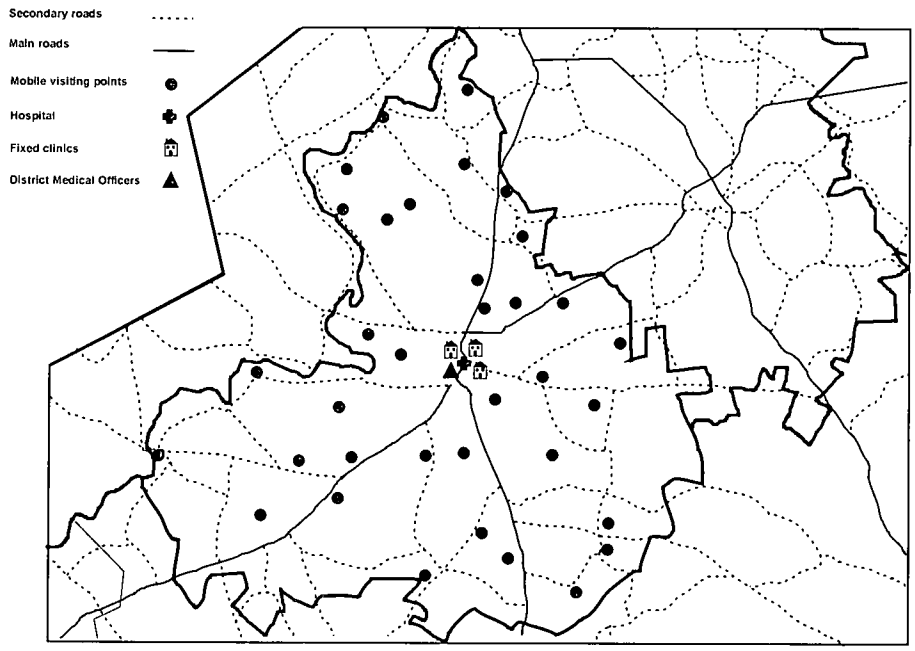
Die navorser vertrou dat die bevindinge van hierdie studie personeel, bestuurders en reëlaars van gesondheidsdienste in die Bothaville sub-distrik met genoegsame inligting sal voorsien om gesondheidsorg soos gelewer aan die landelike gemeenskap daar, te kan optimaliseer, en sodoende ondersteuning sal kan bied met die implementering van die ISDO.

Key terms

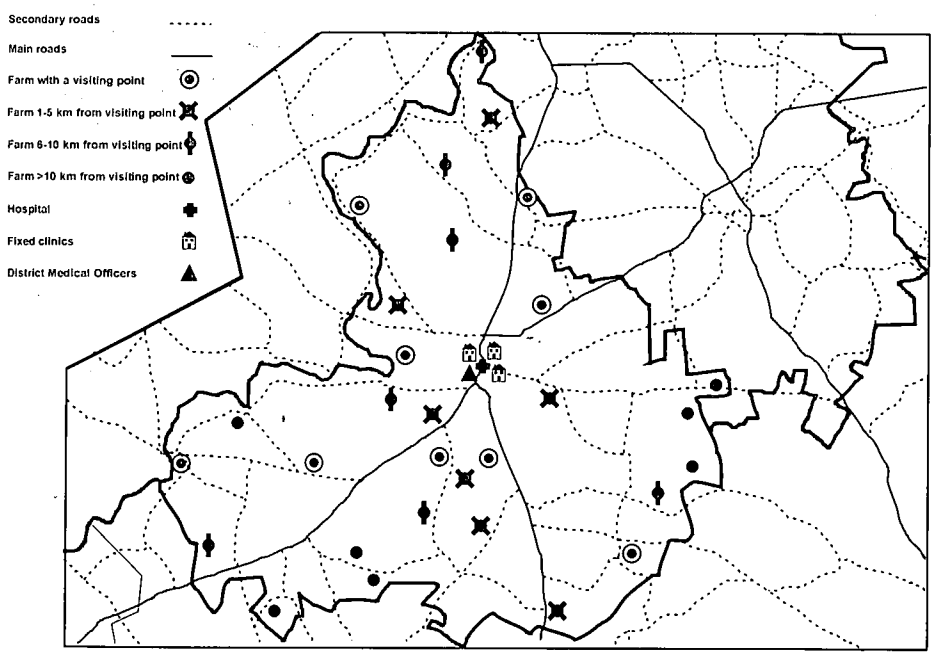
Mobile clinic services
Primary health care delivery
Bothaville farm community
User-friendliness of mobile health services
Accessibility of mobile health services
Public health care transformation
Initiative for Sub-district Support
District Health Systems
Information dissemination
Optimisation of rural health care delivery

ANNEXURE A: MAPS

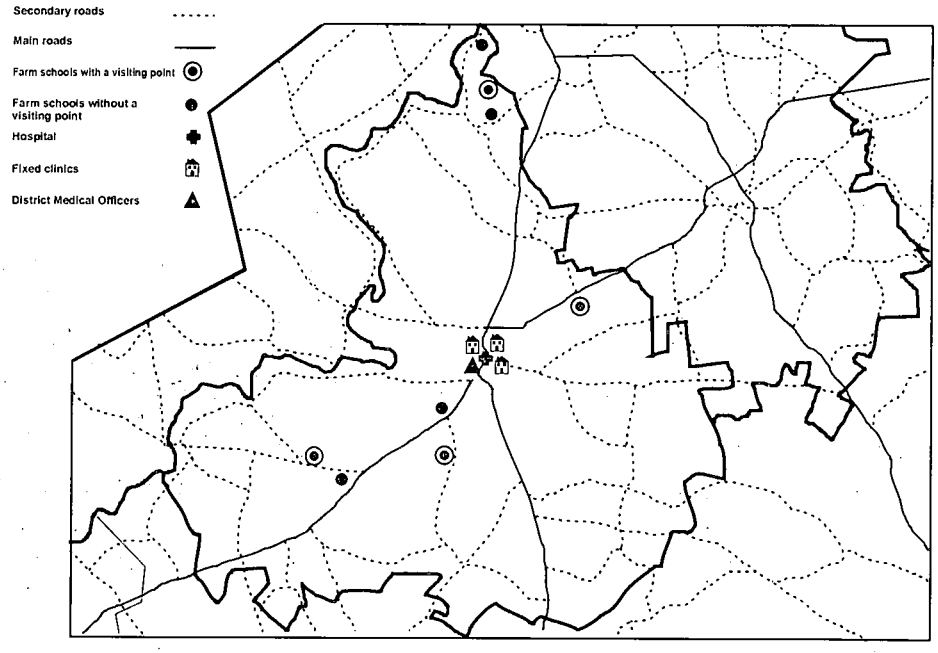
Map 1: Geographical distribution of mobile visiting points in Bothaville



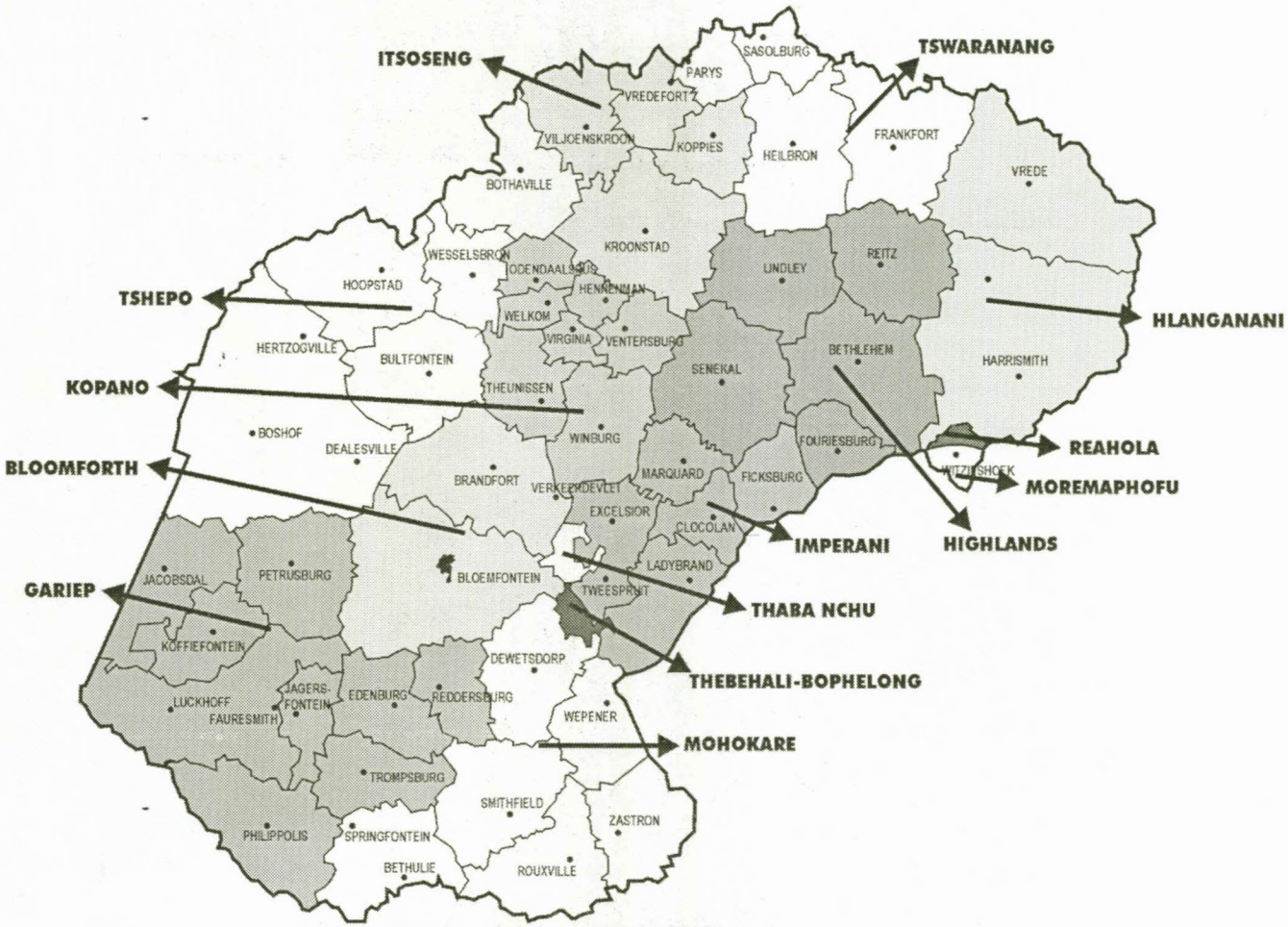
Map 2: Geographical distribution of farm sample in Bothaville



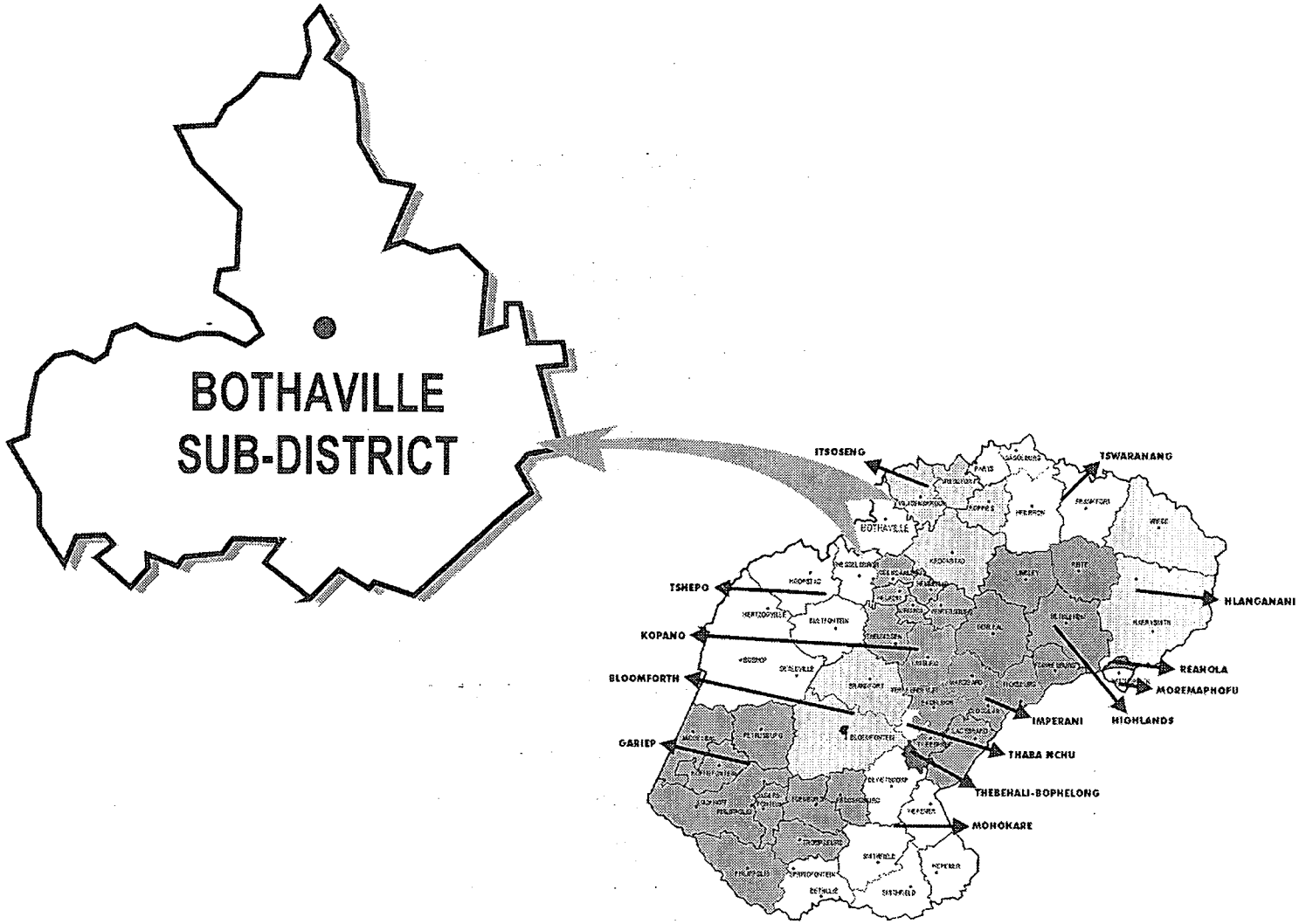
Map 3: Geographical distribution of farm school sample in Bothaville



Map 4: 14 Health districts in the Free State

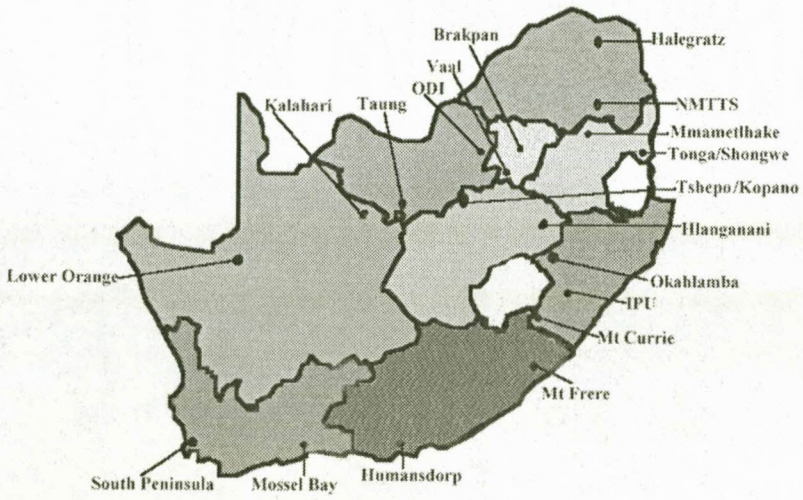


Map 5: 14 Health districts with Bothaville sub-district



Map 6: Tshepano health region, divided into Thsepo and Kopano health districts

Map 7: ISDS sites



ANNEXURE B: QUESTIONNAIRES

THE UNIVERSITY OF THE ORANGE FREE STATE

Centre for Health Systems Research & Development

FACULTY OF SOCIAL SCIENCES

✉ 339 BLOEMFONTEIN 9300
REPUBLIC OF SOUTH AFRICA

Fax: (051) 4480370 SA
E-mail: SVR@RS.UOVS.AC.ZA
☎ (051) 401- 2181/3249

Enquiries: Prof HCJ van Rensburg

26 February 1998

DEAR RESPONDENT

BOTHAVILLE HEALTH CARE SERVICES PROJECT

The Centre for Health Systems Research & Development (CHSR&D), in partnership with the Health Systems Trust (HST), the Department of Health in the Free State (DoHFS) and the Bothaville community, is currently embarking on an extensive health-related project in the Bothaville magisterial district. The title of the project is: *Improving the delivery of health care to the rural and farm communities in the Bothaville district: A health systems research project.*

The aim of the study is to aid the improvement of health care delivery to the rural and farm community of Bothaville district, mainly by providing information on the current situation in order to inform planning, prioritisation and management. This will be achieved by outlining and describing the delivery of health care to the rural community; recommendations to the different health services in Bothaville, to relevant governance structures, and to the regional/district management on how best to improve the organisation, quality and accessibility of care to the rural community.

In order to continue with this project, the CHSR&D needs your assistance in our process of information gathering. Please be assured that the information collected with this survey will be treated as confidential and will remain confidential. This implies that no information you reveal will be traced to you by the researchers of this survey.

Your assistance in this regard will be very much appreciated. We gladly rely on your support. Should you need more information, please contact Prof HCJ van Rensburg at the Centre for Health Systems Research & Development in Bloemfontein at the number given above.

Yours sincerely

PROF HCJ VAN RENSBURG
DIRECTOR: CENTRE FOR HEALTH SYSTEMS RESEARCH & DEVELOPMENT

A QUESTIONNAIRE FOR THE USERS OF MOBILE STOPPING POINTS

Questionnaire no. [ ][ ][ ][ ]

Date of interview: [ ][ ][ ][ ]

Name of interviewer: _____ [ ][ ]

Number of farm: _____ [ ][ ][ ][ ]

A. Biographical information

1. Where did you find the respondent?

Farm with a mobile stopping point	1
Farm without a mobile stopping point (1 - 5 km)	2
Farm without a mobile stopping point (6 - 10 km)	3
Farm without a mobile stopping point (more than 10 km)	4

[ ]

2. Gender:

Male	1
Female	2

[ ]

3. Are you married/living with someone at the moment?

Yes	1
No	2

[ ]

4. How old will you be at your next birthday? _____ [ ][ ][ ]

5. Where did you grow up?

City	1
Town	2
Rural/farm	3

[ ]

6. Are you covered by a medical scheme?

Yes	1
No	2

[ ]

7. If yes, who pays for the medical scheme?

_____ [ ][ ]

B. Employment Status

8.1 Have you worked for payment during the last 12 months?

Yes	1	→ go to 8.2 & 10
No	2	→ go to 9 & 12.1

8.2 If yes, was it a:

permanent position?	1
part time position?	2

9. If you are unemployed, are you...

a student/scholar/pupil	1
a housewife	2
retired	3
disabled	4
seeking work	5
other:	

10. If you are employed, what hours do you work?

10.1 Weekdays:

Work day (7 am - 7 pm)	1
Day work (+/- 8 am - 5pm)	2
Half day work (+/- 8 am - 1 pm)	3
Less than 4 hours per day	4
Less than 2 hours per day	5
N/A	6
Other:	

10.2 If you are employed, what is your average income per month?

R _____-_____

11. If you earn money, who decides how the money you earn is spent?

_____

_____

12.1 Do you receive any additional benefits from the farmer (e.g. food etc.)?

Yes	1	→ go to 12.2
No	2	→ go to 13.1

12.2 If yes, please explain the nature of such additional benefits

_____

_____

C. Household questionnaire

C.1. General Living Conditions

(Interviewer, please make your own observations as to 13.1 - 13.4!)

13.1 Main material of floor: _____ ☐☐

13.2 Main material of walls: _____ ☐☐

13.3 Main material of roof: _____ ☐☐

13.4 Is the yard....

Neat and tidy	1
Littered	2

☐

14. How many people, including yourself, are living in your house?

_____ ☐☐

15. Details of all who are currently living in your house for more than six months:

Male/ Female	Age	Schooling	Employed/ Unemployed

☐ ☐☐ ☐☐ ☐

16. How many rooms are there in your house? _____ ☐☐

17. How many of these rooms are used for sleeping? _____ ☐☐

18. Is there a dustbin in the yard?

Yes	1
No	2

☐

45 - 53, 1 - 65

19. What water source is available for your household?

Tap(s) in house	1
Tap(s) in yard only	2
Farmyard tap(s) shared with other homes	3
Other:	

20. If you do not have access to piped water, where do you get water from? (if the household does have access to piped water, go to 21)

_____

_____

20.1 If you do not have access to piped water, do you treat the water before drinking it?

Yes	1	→ go to 20.2
No	2	→ go to 20.3

20.2 If yes, how? (e.g. boiling the water, use chloride tablets, etc.)

_____

_____

_____

20.3 How/in what do you store water for household purposes?

_____

_____

21. Describe any problem(s) that you experience with the water supply.

_____

_____

_____

22. If there is not a tap in your house or yard, how long does it take you to get to the source? _____ min.

23.1 What type of toilet do you use?

Flush toilet	1
Pit toilet	2
Other:	

23.2 Where is this toilet situated?

Inside the dwelling	1
Outside the dwelling	2

23.3 Describe any problems with the sanitation/toilet/sewage system.

_____

_____

_____

24. What sources of energy do you use at home?

	For cooking	For lighting	For heating
Electricity	1	2	3
Coal	1	2	3
Gas (stove/heater)	1	2	3
Paraffin	1	2	3
Dung	1	2	3
Wood	1	2	3
Other:	1	2	3

25. Is there a separate bath or basin in the house for personal washing?

Yes	1
No	2

26. How is the garbage disposed of?

Burnt	
Demarcated dump on the farm	
Other:	

27. Please indicate whether you have/share in one or more of the following:

	Yes	No
A vegetable garden	1	2
Livestock	1	2
Fruit trees	1	2
Poultry	1	2
Grain	1	2
Maize	1	2
Sunflowers	1	2
Other:		

28. Of what does the following meals in your household usually consist?

28.1 Morning/breakfast

_____ ☐☐

_____ ☐☐

28.2 Afternoon/lunch

_____ ☐☐

_____ ☐☐

28.3 Evening/dinner/supper

_____ ☐☐

_____ ☐☐

C.2. Teenage pregnancies

29. Was/is there someone (19 years old or younger) pregnant in your house during the last two years?

Yes	1	→ go to 30
No	2	→ go to 31

☐

30. Exactly how old was she at the time of delivery?

_____ years ☐☐

C.3. Mental and physical disabilities

31.1 Is there someone in your house who is physically disabled?

Yes	1	→ go to 31.2
No	2	→ go to 32.1

☐

31.2 If yes:

	Nature of physical disability (e.g. blind, crippled)	Gender (M/F)	Age	By whom/ where cared for? (e.g. at home, hospital)				
First person					☐☐	☐	☐☐	☐
Second person					☐☐	☐	☐☐	☐

	Does he/she receive any specialised care/support?	Does he/she receive a grant?	If yes, from whom?			
First person				☐	☐	☐☐
Second person				☐	☐	☐☐

52 - 79, 1 - 8

32.1 Is there someone in your house who is mentally disabled?

Yes	1	→ go to 32.2
No	2	→ go to 33

32.2 If yes:

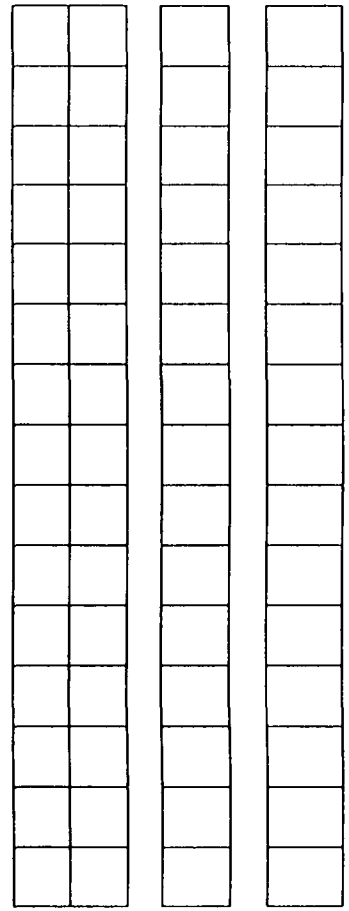
	Nature of mental disability (e.g. mentally retarded)	Gender (M/F)	Age	By whom/ where cared for? (e.g. at home, hospital)
First person				
Second person				

	Does he/she receive any specialised care/support?	Does he/she receive a grant?	If yes, from whom?
First person			
Second person			

C.4. Chronic diseases/illnesses profile

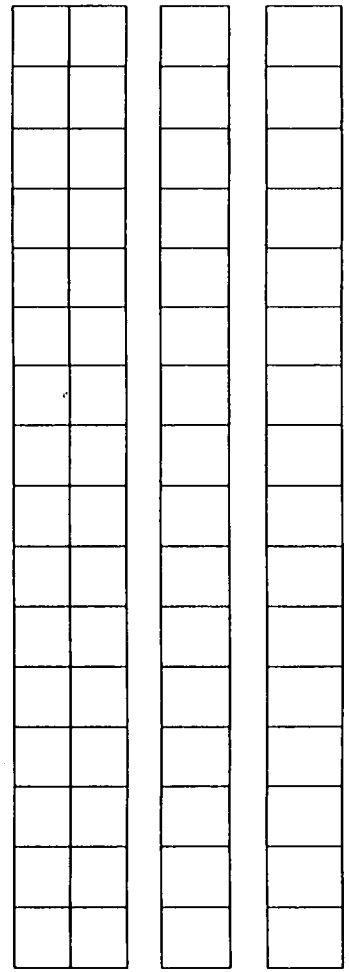
33. Is anyone in your house suffering from one of the following chronic diseases/illnesses? (if not, go to question 35)

Type		For how long been suffering? (years)	What health facility used for care?	Improving or deteriorating?
High blood pressure hypertension)	Person 1			
	Person 2			
	Person 3			
Chronic heart disease	Person 1			
	Person 2			
	Person 3			
Stroke (and permanently affected)	Person 1			
	Person 2			
TB	Person 1			
	Person 2			
	Person 3			
Sugar diabetes	Person 1			
	Person 2			
Epilepsy	Person 1			
	Person 2			



1 - 60

Type		For how long been suffering? (years)	What health facility used for care?	Improving or deteriorating?
Asthma	Person 1			
	Person 2			
	Person 3			
STDs	Person 1			
	Person 2			
	Person 3			
Malnutrition	Person 1			
	Person 2			
	Person 3			
Chronic geriatric condition (due to old age)	Person 1			
	Person 2			
	Person 3			
HIV/AIDS	Person 1			
	Person 2			
Other:	Person 1			
	Person 2			



(Questions 34.1 & 34.2 applies to people who suffered from TB)

34.1 If you had TB, did you complete the treatment?

Yes	1	→ go to 35
No	2	→ go to 34.2

34.2 If no, why didn't you complete the treatment?

_____

_____

35. What do you view as the most serious health problems experienced in your house?

_____

_____

_____

C.5. Deaths

36.1 Has someone in your house died during the past two years?

Yes	1	→ go to 36.2
No	2	→ go to 37.1

36.2 If yes, ...

	What was the cause of death?	Age when he/she died	Gender (M/F)
Person 1			
Person 2			

D. Knowledge and behaviour

37.1 Have you had your blood pressure taken during the past 12 months?

Yes	1	→ go to 37.2
No	2	→ go to 38.1

37.2 If yes, was it...

High	1
Normal	2
Low	3

37.3 If yes, at which facility was it taken?

_____ | | |

_____ | | |

38.1 Has there ever been anything wrong in/with your...

	Yes	No
Mouth	1	2
Teeth	1	2
Gums	1	2

→ if yes to 38.1, go to 38.2 & 38.3
→ if no to 38.1, go to 39.1

38.2 Have you ever sought treatment for this problem?

Yes	1
No	2

38.3 If yes, where did you go?

_____ | | |

39.1 Have you ever...

	Yes	No
smoked tobacco	1	2
used snuff	1	2
chewed tobacco	1	2

→ if yes to 39.1, go to 39.2
→ if no to 39.1, go to 40.1

39.2 How regularly do you smoke/snuff/chew tobacco?

_____ | | |

40.1 What kind of alcoholic beverage do you drink? (if none, go to 41.1)

_____ | | |

40.2 How regularly do you enjoy such an alcoholic drink?

_____ | | |

41.1 In the last 12 months, how many sex partners have you had?

_____ | | |

41.2 How old were you when you first had sexual intercourse?

_____ | | |

42.1 Do you believe that the disease called AIDS actually exists?

Yes	1
No	2

42.2 Do you know what HIV/AIDS is?

Yes	1
No	2

13 - 37

42.3 Where did you learn most of what you know about AIDS?

_____ ☐☐

42.4 Do you know anyone suffering from AIDS?

Yes	1	→ go to 42.5
No	2	→ go to 42.6

☐

42.5 If yes, what is your relation with that person?

An acquaintance	
A friend	
A household relative	
A distant relative	
Colleague	

☐

42.6 Please indicate whether you agree, feel uncertain, or disagree on the following statements: AIDS can be prevented by...

	Agree	Uncertain	Disagree	
having a good diet	1	2	3	☐
staying with one partner	1	2	3	☐
avoiding public toilets	1	2	3	☐
using condoms	1	2	3	☐
avoid touching a PWA	1	2	3	☐
avoid being bitten by insects	1	2	3	☐
avoid sharing of needles	1	2	3	☐
avoid sharing razor blades	1	2	3	☐
avoid sharing food with a PWA	1	2	3	☐

42.7 In your opinion, does a person with AIDS look different from other people?

Yes	1	→ go to 42.8
No	2	→ go to 43.1

☐

42.8 If yes, please motivate your answer.

_____ ☐☐

_____ ☐☐

E. Health Seeking Behaviour

43.1 If you are not seriously ill, where would you go first for help?

General practitioner	1
Clinic	2
Mobile stopping point	3
Hospital	4
Pharmacist	5
Herbalist	6
Sangoma	7
Traditional faith healer	8
To the farmer/his wife	9
Neighbour	10
Family member	11
Parents	12
Friends	13
Nowhere, I treat myself	14
Other:	

43.2 Why do you go there first for help?

_____

_____

44.1 If you should become seriously ill, where would you go first for help?

General practitioner	1
Clinic	2
Mobile stopping point	3
Hospital	4
Pharmacist	5
Herbalist	6
Sangoma	7
Traditional faith healer	8
To the farmer/his wife	9
Neighbour	10
Family member	11
Parents	12
Friends	13
Nowhere, I treat myself	14
Other:	

44.2 Why would you go there for help?

_____

_____

_____

45.1 Have you attended a mobile clinic on a farm?

Yes	1	→ go to 45.3 - 45.5
No	2	→ go to 45.2

45.2 If no, why not?

_____

_____

_____

45.3 If yes, when last did you attend a mobile clinic?

45.4 If yes, for what reason did you visit the mobile clinic the previous time?

_____

_____

45.5 If yes, for what reason do you usually visit the mobile clinic?

_____

_____

46.1 Have you ever attended a clinic in Bothaville or in Kgotsong?

Yes	1	→ go to 46.2, 47.1 & 47.2
No	2	→ go to 48.1

46.2 If yes, why did you attend a clinic in Bothaville/Kgotsong and not a mobile clinic?

_____

_____

_____

47.1 Do you prefer to attend a mobile clinic or a clinic in town?

Mobile stopping point	1
Town	2

47.2 Why would you prefer this specific service?

_____ |__|__|

_____ |__|__|

_____ |__|__|

48.1 Have you ever attended a clinic in another town (apart from Bothaville/Kgotsong)?

Yes	1	→ go to 48.2
No	2	→ go to 49.1

|__|

48.2 If yes, why?

_____ |__|__|

_____ |__|__|

_____ |__|__|

49.1 Have you ever been injured/needed emergency care?

Yes	1	→ go to 49.2 - 49.6
No	2	→ go to 50.1

|__|

49.2 If yes, what was the nature of your last injury/emergency?

_____ |__|__|

_____ |__|__|

49.3 If yes, where did you go first for help the last time you were injured/needed emergency care?

To the farmer/his wife	1
Neighbour	2
Family member	3
Parents	4
Friends	5
Nowhere, I treated myself	6
Other:	

|__|

49.4 How long after this injury/emergency did you wait before receiving medical treatment?

_____ hours _____ minutes |__|__|__|__|

49.5 Where were you taken/did you go for medical treatment?

General Practitioner	1
Clinic	2
Mobile stopping point	3
Hospital	4
Pharmacist	5
Herbalist	6
Sangoma	7
Traditional faith healer	8
Other:	

49.6 How did you get to the place where you received medical treatment?

_____

_____

50.1 Let us talk about traditional healing by considering the way in which some people compare it to western medicine. Sipho says that traditional medicine no longer has a place in modern society. Thabo says that traditional medicine has a definite place in modern society. Who do you agree most with, Sipho or Thabo.

Sipho	1
Thabo	2

50.2 Khetsa says that western medicine work better because they are based on science. Mpho says that traditional medicines work better because they have been handed down from generation to generation. Who do you agree most with, Khetsa or Mpho?

Khetsa	1
Mpho	2

50.3 Have you ever visited a traditional healer?

Yes	1	→ go to 50.4 - 50.7
No	2	→ go to 51.1

50.4 If yes, what kind of traditional healer did you visit?

Herbalist	1
Sangoma	2
Faith healer	3
Traditional birth attendant	4
Other:	

50.5 If yes, who referred you to the traditional healer?

_____

50.6 If yes, for what condition did you visit the traditional healer?

_____ | | |

_____ | | |

50.7 Was the treatment successful?

Yes	1
No	2

F. Dissemination of information

In the old system of mobile clinics, the clinics stopped at every farm, farm school and cattle post in the district. In the new system of stopping points, however, the mobile clinics stop only on certain points, and the people not living on that farm must travel to the nearest stopping point.

51.1 Are you aware of the new system of mobile stopping points?

Yes	1	→ go to 51.2
No	2	→ go to 51.2

51.2 Have you ever visited a mobile stopping point?

Yes	1	→ go to 51.3
No	2	→ go to Section I, Section J or Section K, or, if not applicable, terminate the interview

51.3 How did you find out about the new system of mobile stopping points?

_____ | | |

_____ | | |

_____ | | |

52.1 Do you know the exact day when the mobile clinics come to the point nearest to you?

Always	1
Sometimes	2
Never	3

52.2 If "always" or "sometimes", who informs you about this time table?

_____ | | |

_____ | | |

_____ | | |

51 - 73

53.1 Would you like to be consulted in health matters of people living on farms in your area?

Yes	1	→ go to 53.2
No	2	→ go to 54.1

53.2 Please motivate your answer.

_____

_____

_____

G. Old and New System

54.1 How often do you visit a mobile stopping point?

Twice a month	1
Once a month	2
Once every six weeks	3
Once every two months	4
Once every three months	5
Once every four months	6
Visited only once since implementation	7
Never visited one	8

54.2 How often did you make use of the old mobile system?

Twice a month	1
Once a month	2
Once every six weeks	3
Once every two months	4
Once every three months	5
Once every four months	6
Never made use of it	7

54.3 What problems, if any, did you experience with the previous system of mobile clinics?

_____

_____

_____

54.4 Compared to the new mobile clinic system, what were the advantages, if any, of the previous mobile system?

_____

_____

_____

74 - 80, 1 - 14

54.5 Do you think that the new system of mobile stopping points is better than the old system?

Yes	1
No	2

54.6 Please explain your answer to the previous question.

H. Accessibility and User-Friendliness

(This section applies only to respondents who already visited a mobile stopping point or mobile clinic)

55.1 How are you usually treated when you visit a mobile stopping point?

Very Good	1	Good	2	Uncertain	3	Poor	4	Very poor	5

55.2 Please explain your answer.

56.1 How friendly are the nurses working at the mobile stopping points?

Very Friendly	1	Friendly	2	Uncertain	3	Unfriendly	4	Very unfriendly	5

56.2 Please explain your answer to the previous question.

57.1 Are you satisfied with the health care that you get at the mobile stopping points?

Yes	1
No	2

57.2 Please explain your answer to the previous question.

_____ | | |

_____ | | |

_____ | | |

58. Please rate your satisfaction with the following you receive at mobile clinics:

	Dissatisfied	Uncertain	Satisfied	
Examination	1	2	3	
Explanation of your illness	1	2	3	
Treatment of your illness	1	2	3	
Medicine for your illness	1	2	3	
Advice on how to prevent this illness in the future	1	2	3	

59. Have you ever received any information on the following matters from the nurse?

	Yes	No	
Family planning	1	2	
STDs	1	2	
Pregnancy	1	2	
Contraceptive use	1	2	
Rape	1	2	
Parenthood	1	2	
HIV/AIDS	1	2	
Nutrition			

60.1 How do you get to the mobile stopping point?

	Previous time	Usually		
I walk	1	1		
I come by taxi	2	2		
The farmer/his wife brings me	3	3		
My own transport	4	4		
Other:				

60.2 What kind of problems, if any, do you experience with transport to the mobile stopping point?

_____ | | |

_____ | | |

_____ | | |

60.3 How long does it take you to reach the mobile stopping point?

Hours _____ Min _____ | | | | |

60.4 Do you have to pay for transport to/from the mobile stopping point?

Yes	1	→ go to 60.5
No	2	→ go to 61

60.5 If yes, how much do you have to pay for a return trip?

R_____-_____

61. If you are referred to a doctor, how do you get to town?

_____

_____

62.1 Do you have to wait in a queue before you are attended to at the mobile stopping point?

Yes	1
No	2

62.2 Approximately how long do you usually wait in a queue before being attended to by a sister?

Less than 10 min	1
10 - 19 min	2
20 - 29 min	3
30 - 39 min	4
40 - 49 min	5
50 - 59 min	6
an hour or more	7

63. Were you ever sent back home without being helped?

Yes	1
No	2

64.1 How much time does the sister usually spend with you?

4 min or less	1
5 - 9 min	2
10 - 14 min	3
15 - 19 min	4
20 - 24 min	5
25 min or more	6

64.2 Are you satisfied with the time that the sister usually spends with you?

Yes	1
No	2

64.3 Please motivate your answer to the previous question.

_____

_____

_____

1 - 20

65.1 Before you can visit the mobile stopping point, do you have to ask the farmer/his wife for permission?

Yes	1
No	2

65.2 Does he/she sometimes complain when you want to visit the mobile clinic?

Yes	1	→ go to 65.3
No	2	→ go to 66.1

65.3 If yes, please explain your answer to the previous question.

_____

_____

_____

66.1 Do weather conditions sometimes prevent you from attending the mobile stopping point?

Yes	1
No	2

66.2 Please explain your answer to the previous question.

_____

_____

_____

67.1 Do you enjoy visiting the mobile stopping point?

Yes	1
No	2

67.2 Please explain your answer to the previous question.

_____

_____

_____

I. Mother and Child Health (18 - 49)

(This section applies to women who had babies during the past two years)

68.1 Were any babies born to you during the past two years?

Yes	1	→ go to 68.2
No	2	→ go to 70

68.2 If yes:

Age of mother	Place of delivery (clinic, hospital, home, other)	Birth attendant	Type of delivery (NVD/CS)
1			
2			
3			

Serious complica-tions during birth (yes/no)	Outcome of baby (live birth/ still birth)	No. of ANC visits	No. of PNC visits	Family planning method used at present
1				
2				
3				

Are you breast feeding (yes/no)	Do you receive any milk powder/extra food for your baby from the mobile clinic? (yes/no)
1	
2	
3	

69. How/with what was the umbilical cord treated after the birth?

_____ | | |

_____ | | |

70. THE FOLLOWING SECTION IS APPLICABLE ONLY TO WOMEN WHO HAVE CHILDREN BETWEEN THE AGES OF 1 AND 5 YEARS; IF THERE ARE NO CHILDREN BETWEEN 1 - 5 YEARS, GO TO 74.1.

70.1 Did any of your children in the age group 1 to 5 years die during the past two years?

Yes	1	→ go to 70.2 (if no children between 1 - 5 years, go to 74.1)
No	2	→ go to 71.1

70.2 If yes, how many children died? _____

70.3 What was/were the cause(s) of death(s)?

Child 1		
Child 2		
Child 3		

44 - 79, 1 - 18

71.1 How many of your children, in the following age groups, are fully immunised? (ask to their cards)

	No. of children in house	No. of children immunised
< 1 year		
1 - 5 years		

71.2 At which health care facility were they immunised?

Mobile clinic	1
Fixed clinic	2
Other:	

72. Do you know how to make an oral rehydration solution (if a child gets diarrhoea)?

Yes	1
No	2

Please explain how:

_____

_____

73.1 Are children (5 years and younger) taken for regular check-ups (i.e. at least every second month) to the mobile stopping point?

Yes	1	→ go to 74.1
No	2	→ go to 73.2

73.2 If no, please explain your answer.

_____

_____

74.1 Have you ever had an abortion?

Yes	1	→ go to 74.2 - 74.5
No	2	→ go to 75.1

74.2 If yes, how many abortions have you had?

_____

74.3 Who performed the abortion?

_____

74.4 Where was the abortion performed?

_____

74.5 Why was the abortion performed?

_____

_____

_____

J. Family planning and sexual behaviour (18 - 49)

(PLEASE REMIND THE RESPONDENT THAT ALL INFORMATION WILL BE TREATED CONFIDENTIALLY!)

75.1 Do you use any form of contraception?

Yes	1	→ go to 75.2
No	2	→ go to 75.3

75.2 If yes, which form of contraceptives do you usually use?

The Pill	1
Injections	2
Diaphragm	3
Sterilisation	4
Spermicide	5
Condoms	6
Herbs	7
Other:	

75.3 Where do/did you obtain information on contraceptive use for the first time?

Hospital	1
Mobile clinic	2
Fixed clinic	3
Family members	4
Friends	5
Partners	6
Media (magazines, radio)	7
Other:	

75.4 Do you make use of any family planning service?

Yes	1	→ go to 75.5
No	2	→ go to 76.1 if necessary, otherwise terminate the interview

75.5 Which family planning service do you make use of?

Hospital	1
Mobile clinic	2
Clinic in town	3
Doctor	4

K. For persons older than 60 years of age

76.1 Do you receive a state pension?

Yes	1	→ go to 76.2 - 76.5
No	2	→ go to 77.1

76.2 If yes, how much money do you receive per month? R_____

43 - 54

76.3 If you receive a state pension, do you have any persons dependent on you for this money?

Yes	1
No	2

76.4 If yes, how many of them are:

76.4.1 adults? _____

76.4.2 children under 15? _____

76.5 Why are the adults dependent on your pension?

_____

_____

77.1 Describe your physical health as compared to other people your age.

_____

_____

77.2 Rate your overall satisfaction with your health.

Very satisfied	1
Satisfied	2
Uncertain	3
Dissatisfied	4
Very dissatisfied	5

77.3 Please explain your answer to the previous question.

_____

_____

78.1 Do you have any difficulties in carrying out daily activities (e.g. getting in and out of bed, going to the toilet, making food)?

Yes	1	→ go to 78.2 - 78.5
No	2	

78.2 Do you have difficulty with any of the following?

	Yes	No
Seeing	1	2
Hearing	1	2
Speaking	1	2
Walking or moving	1	2
Learning or understanding	1	2

78.3 If yes, do you require any assistive devices or equipment to help you to cope more adequately with these difficulties (e.g. glasses, hearing aid, walking sticks, cruches, etc.)?

Yes	1
No	2

78.4 If yes, what devices or equipment do you need?

_____ .

_____

78.5 Do you have the device(s) that you need?

Yes	1
No	2

Thank you for your participation!!

A Questionnaire for interviews with teachers at farm schools in the Bothaville rural areas

Questionnaire no

1.1 Date of interview:

1.2 Name of school: _____

1.3 How many teachers: _____

1.4 Which grades: _____ - _____

1.5 Number op pupils: _____

1.6 Average age of pupils: _____ - _____

A. Health facilities

2.1 How far is your school from the nearest town? _____km.

2.2 Which town would this be? _____

2.3 How far is your school from the nearest health facility? _____km.

2.4 Where is this health facility _____

2.5 What type of health facility would this be? _____

3. What are the most prevalent health problems experienced by pupils at your school in terms of ...

3.1 ... diseases/illness?

_____

_____

_____

_____

3.2 ... health conditions?

_____

_____

_____

_____

4.1 Please name all the services received by your pupils from the mobile clinics.

4.2 Please name all the services that you view as important which are not rendered by the mobile clinics.

5.1 What do you view as the main deficiencies in the delivery of health care to pupils at your school?

5.2 What do you view as the main deficiencies in the delivery of health care to rural communities in general in the Bothaville district?

6.1 What do you do when a child falls ill at your school?

6.2 How frequently does this happen?

Very often	1	Often	2	Sometimes	3	Not often	4	Never	5

6.3 What do you do in cases of an emergency at your school?

6.4 How frequently does this happen?

Very often	1	Often	2	Sometimes	3	Not often	4	Never	5

7.1 What role does the farmer/or/and his wife nearest to the farm school, play in the health care of the pupils at your school?

_____ ☐☐

_____ ☐☐

_____ ☐☐

_____ ☐☐

7.2 If he/she does not play a role at this stage, do you feel that he/she could play a role?

Yes	1
No	2

☐

7.3 Please explain your answer.

_____ ☐☐

_____ ☐☐

_____ ☐☐

_____ ☐☐

B. Mobile clinic system

8.1 Do you know that the mobile health care system in Bothaville has changed?

Yes	1	→ go to 8.2
No	2	→ go to 9 & Section C.

☐

8.2 Do you know what these changes are?

Yes	1
No	2

☐

8.3 Please explain your answer.

_____ ☐☐

_____ ☐☐

_____ ☐☐

_____ ☐☐

8.4 Were you informed about the change?

Yes	1	→ go to 8.5
No	2	→ go to 8.6

☐

59 - 77, 1 - 9

8.5 How were you informed about the change?

8.6 Do you know why the previous system was changed?

Yes	1	→ go to 8.7
No	2	→ go to 9

8.7 Please elaborate on your answer.

9. In your opinion, what were the main shortcomings of the **previous system** ...

9.1 ... as far as your school is concerned?

9.2 ... as far as the community is concerned?

10. Would you say that the new system functions better/worse than the previous one ...

10.1 ... as far as your school is concerned?

Better	1
Worse	2

10.2 In what respects?

_____ ☐☐

_____ ☐☐

_____ ☐☐

_____ ☐☐

10.3 ... as far as the community is concerned?

Better	1
Worse	2

☐

10.4 In what respects?

_____ ☐☐

_____ ☐☐

_____ ☐☐

_____ ☐☐

C. Availability/accessibility

11. How often do the pupils in your school have access to mobile health care?

_____ ☐☐

12. Does a mobile clinic stop at your school?

Yes	1	→ go to Section C.2
No	2	→ go to Section C.1

☐

C.1. If there is no mobile stopping point at your school, ...

13.1 How far is your school from the nearest mobile visiting point? _____km. ☐☐☐

13.2 How do pupils get to the nearest mobile visiting point?

_____ ☐☐

_____ ☐☐

_____ ☐☐

_____ ☐☐

13.3 Are you aware of the dates on which they come and visit?

Always	1
Mostly	2
Often	3
Sometimes	4
Not often	5
Almost never	6
Never	7

13.4 Do the mobiles always arrive according to the time schedules?

Always	1
Mostly	2
Often	3
Sometimes	4
Not often	5
Almost never	6
Never	7

13.5 How are you notified when changes are made on the time schedules?

13.6 Do you allow your pupils to attend the mobile clinic?

Always	1
Mostly	2
Often	3
Sometimes	4
Not often	5
Almost never	6
Never	7

13.7 Please explain your answer.

13.8 Name all the ways in which pupils get to health facilities in town when referred?

C.2. If there is a mobile stopping point clinic at your school, ...

14.1 How regularly does the satellite clinic visit you school?

_____ ☐☐

_____ ☐☐

14.2 For how long do they stay at your school?

_____ ☐☐

_____ ☐☐

14.3 Are you aware of the dates on which they come and visit?

Always	1
Mostly	2
Often	3
Sometimes	4
Not often	5
Almost never	6
Never	7

☐

14.4 Do the mobiles always arrive according to the time schedules?

Always	1
Mostly	2
Often	3
Sometimes	4
Not often	5
Almost never	6
Never	7

☐

14.5 How are you notified when changes are made on the time schedules?

_____ ☐☐

_____ ☐☐

_____ ☐☐

14.6 Do you allow your pupils to attend the mobile clinic?

Very often	1	Mostly	2	Sometimes	3	Not often	4	Never	5

☐

14.7 How often do you allow your pupils to attend the mobile clinics per month?

_____ ☐☐

_____ ☐☐

14.8 Name all the ways in which pupils get to health facilities in town when referred?

D. Shortcomings/constraints

15.1 In your opinion, what are the main shortcomings/constraints of the new mobile stopping point system?

15.2 How can these shortcomings/constraints, in your opinion, be overcome?

16. What would you view as the ideal health care system ...

16.1 ... for schools in rural areas?

16.2 ... for the farm community in general?

17. What is the role of the farmer/his wife with regards to the system of mobile visiting points?

E. Health education

18.1 Do the mobile clinics provide education to the pupils on the following health matters:

	Yes	No
General health	1	2
Personal hygiene	1	2
STDs & HIV/AIDS	1	2
Family planning	1	2

18.2 What other health education, in your opinion, should be supplied?

19.1 In your opinion, is the service supplied by the mobile clinics adequate to meet the needs of the pupils?

Yes	1
No	2

19.2 Please explain your answer thoroughly.

20.1 Do you as a teacher provide any form of health education to your pupils?

Yes	1	→ go to 20.2
No	2	→ go to 21.1

20.2 If yes, in what form do you provide health education?

F. Co-operation with the mobile clinics

21.1 How would you describe the relationship between your pupils and the mobile clinic personnel in general?

Very good	1	Good	2	Average	3	Poor	4	Very poor	5

21.2 Please explain your answer.

21.3 Are there any suggestions that you would like to make as to how co-operation between the mobile clinic and the pupils can be improved?

22.1 How would you describe the relationship between your school and the mobile clinic personnel in general?

Very good	1	Good	2	Average	3	Poor	4	Very poor	5

22.2 Please explain your answer.

22.3 Are there any suggestions that you would like to make as to how co-operation between the mobile clinic and the school can be improved?

_____ | | |
_____ | | |
_____ | | |
_____ | | |

23.1 Are there existing structures/bodies to facilitate co-operation between your school and the mobile clinic personnel?

Yes	1	→ go to 23.2
No	2	→ go to 23.4

23.2 If yes, what are they?

_____ | | |
_____ | | |
_____ | | |
_____ | | |

23.3 How can these structures/bodies facilitate better co-operation?

_____ | | |
_____ | | |
_____ | | |
_____ | | |

23.4 If not, what structures are needed for this purpose?

_____ | | |
_____ | | |
_____ | | |
_____ | | |

G. Additional questions

24.1 Which NGOs/CBOs can play a constructive role in the health of farm schools and farm communities?

_____ | | |
_____ | | |
_____ | | |
_____ | | |

24.2 Please elaborate your answer.

_____ | | |
_____ | | |
_____ | | |
_____ | | |

24.3 How can these organisations be activated/mobilised/optimised to contribute to the delivery of health care to farm schools and the broader community?

_____ | | |
_____ | | |
_____ | | |
_____ | | |

Thank you for your participation!

A questionnaire for the personnel of mobile clinics

Questionnaire no. ☐☐☐☐

1.1 Date of interview: ☐☐☐☐ ☐☐☐☐

1.2 Name of interviewer: _____ ☐☐

1.3 Position of respondent: _____ ☐☐

A. Problems currently experienced

2.1 What would you view as the main structural problems with the health service delivery in Bothaville-Kgotsong?

_____ ☐☐

_____ ☐☐

_____ ☐☐

2.2 What would you view as the main structural problems with health service delivery in the Bothaville rural areas?

_____ ☐☐

_____ ☐☐

_____ ☐☐

B. Evaluation of the previous system

3.1 What were the advantages of the previous system of mobile health?

_____ ☐☐

_____ ☐☐

_____ ☐☐

3.2 Please elaborate on these advantages.

_____ ☐☐

_____ ☐☐

_____ ☐☐

3.3 What were the disadvantages/shortcomings of the previous system of mobile health?

3.4 Please elaborate on these disadvantages/shortcomings.

3.5 Which of these problems were solved with the implementation of the mobile stopping point system?

3.6 In which ways were these problems solved?

C. Evaluation of the new system

4.1 What are the advantages of the new system of mobile health?

4.2 Please elaborate on these advantages.

4.3 What are the disadvantages/shortcomings of the new system of mobile health?

4.4 Please elaborate on these disadvantages/shortcomings.

4.5 How can these shortcomings be rectified?

5. In your opinion, would you say that the change in the mobile health services has been for the better or the worse, for....

5.1 ... your health facility?

Better	1
Worse	2

5.2 Please explain your answer.

5.3 ... the users of the mobile health services?

Better	1
Worse	2

5.4 Please explain your answer.

5.5 ... other health care workers/providers?

Better	1
Worse	2

5.6 Please explain your answer.

6.1 How do you deal with unforeseen disruptions in the time table, e.g. heavy rain in the district or an ill member of staff?

6.2 How do you communicate changes in the time table to the community?

D. Effects/influences of the change in mobile health services

7.1 What were the effects/influences of the change on your health facility during its implementation?

7.2 How were these influences coped with?

8.1 In what way does the change in mobile health services influence the functioning of your health facility at the moment?

8.2 In which way(s) are you addressing these influences?

9. Which necessary adaptations to the new system of mobile health are the most difficult to address?

10.1 What role do farmers/their wives play in reminding the people on their farms of mobile stopping point system dates and times?

10.2 Do you have problems regarding the co-operation you receive from farmers/their wives with the new system?

Yes	1	→ go to 10.3
No	2	→ go to 10.4

10.3 Please explain the nature of these problems.

10.4 To what degree is the new system dependent on the co-operation of the farmer/their wives?

10.5 Please explain your answer.

_____ ☐☐

_____ ☐☐

_____ ☐☐

10.6 How would you describe the relationship between the mobile staff and the farmers/their wives?

_____ ☐☐

_____ ☐☐

_____ ☐☐

10.7 Do you experience any problems liaisoning with farmers/their wives?

Yes	1	→ go to 10.8
No	2	→ go to 11.1

☐

10.8 If yes, please describe the nature of these problems.

_____ ☐☐

_____ ☐☐

_____ ☐☐

11.1 Do you know of any co-operation between farmers in transporting people living/working on their farms to the mobile stopping points?

Yes	1	→ go to 11.2
No	2	→ go to 11.3

☐

11.2 If yes, what is the nature of this co-operation?

_____ ☐☐

_____ ☐☐

_____ ☐☐

11.3 What are the three most prevalent modes of transport used by people living/working on your farm to get to the mobile stopping points?

_____ ☐☐

_____ ☐☐

_____ ☐☐

11.4 Do you find that farmers take their workers to other health facility instead of taking them to the mobile stopping points?

Yes	1	→ go to 11.5
No	2	→ go to 12.1

11.5 What could the reason(s) for this be?

11.6 How does this influence the situation at your health facility?

11.7 Would you like to make any suggestions as to how this problem can be solved?

12.1 Do patients from rural areas encounter any problems when referred to facilities in town?

Yes	1	→ go to 12.2
No	2	→ go to 12.4

12.2 Please explain these problems and their seriousness.

12.3 How can these problems be solved?

12.4 How do people get to health facilities in town when referred?

12.5 In your opinion, how should the system of patient referral from rural areas to district surgeons/hospital services function?

13.1 Have you encountered any complaints from referred patients since the mobile health system was changed?

Yes	1	→ go to 13.2
No	2	→ go to 14.1

13.2 If yes, what complaints have you encountered?

13.3 Do you have any ideas on how these complaints can be addressed?

E. Planning

14.1 Would you say that adequate planning was undertaken before the new system of mobile health was implemented?

Yes	1
No	2

14.2 Please explain your point of view on this matter.

14.3 What preparations were done before the new system was implemented?

_____ ☐☐
_____ ☐☐
_____ ☐☐

15.1 Who made the decision to change the previous system of mobile health care?

_____ ☐☐
_____ ☐☐

15.2 Were you consulted in the decision-making process?

Yes	1	→ go to 15.3
No	2	→ go to 15.4

☐

15.3 If yes, how were you consulted?

_____ ☐☐
_____ ☐☐
_____ ☐☐

15.4 If not, would you like to have been consulted?

Yes	1
No	2

☐

15.5 How were you informed of the change in the mobile health system?

_____ ☐☐
_____ ☐☐
_____ ☐☐

16.1 How did you disseminate information regarding the new time table to the community before you implemented the new system?

_____ ☐☐
_____ ☐☐
_____ ☐☐

16.2 Was this method of information dissemination adequate?

Yes	1	→ go to 16.4
No	2	→ go to 16.3

☐

16.3 Please explain any problems that you encounter in the dissemination of information to the rural community.

16.4 Have you changed the method of information dissemination since?

Yes	1	→ go to 16.5
No	2	→ go to 17.1

16.5 If yes, what is the new system for disseminating information?

17.1 Who do you communicate with in management regarding the new system?

17.2 Do you experience any problems communicating with this/these person(s)?

Yes	1	→ go to 17.3
No	2	→ go to 18.1

17.3 Please describe the nature of these problems.

F. Suggestions

18.1 Do you experience any relational problems with other health care facilities in Bothaville/ Kgotsong?

Yes	1	→ go to 18.2
No	2	→ go to 19.1

18.2 Please explain your answer.

19.1 Are there any suggestions that you would like to make as to how co-operation between the mobile health services and other health care facilities can be improved?

19.2 Are there any suggestions that you would like to make as to how co-operation among the different components of health care can be improved?

19.3 Do you have any suggestions as to how the functioning of mobile health services can be improved?

G. Integration of services

20.1 In your opinion, what is the possibility for the integration of all the health care components (hospital, district surgeon services, fixed clinics and mobile health services) into one service?

20.2 What are the factors hampering such integration?

20.3 Do you have any suggestions as to how such an integration, under one authority, can be done?

21. What would be the advantages of such a system for...

21.1 ... the health care personnel (different categories)?

21.2 ... the organisation of the service?

21.3 ... the patient?

21.4 ... the community/public?

22.1 How should the organisational authority structures of such an integrated service look like?

22.2 How should such a process of integration be initiated or phased in?

H. Additional questions

23.1 Which NGOs and CBOs can play a constructive role in the health care in Bothaville and its rural areas?

23.2 What role can they play?

23.3 How can this resource be mobilised/activated/optimised in both the health and the business sector?

23.4 What role can the private sector play in improving the health of rural/farm communities in Bothaville?

23.5 How can this resource be mobilised/activated/optimised?

24.1 Are you aware of the Co-ordinating Forum for Health Services in Bothaville?

Yes	1
No	2

24.2 If yes, what do you view as the function of this Forum?

_____

_____

_____

24.3 In your opinion, is the Forum fulfilling its purpose?

Yes	1
No	2

24.4 Please explain your answer and possible problems.

_____

_____

_____

Thank you for your participation!

A QUESTIONNAIRE FOR PERSONNEL: FIXED CLINICS, HOSPITAL STATE CONTRACTED DOCTOR, AND OTHER

Date of interview:

Name of health facility:

_____

1. Biographical information

1.1 Position of interviewee within health services:

_____

1.2 For how long have you been working for health care in Bothaville?

_____

2. Problems currently experienced

2.1 What would you view as the main structural/organisational problems with the health service delivery in Bothaville-Kgotsong?

_____

_____

_____

2.2 What would you view as the main structural/organisational problems with health service delivery in the Bothaville district?

_____

_____

_____

2.3 Would you like to make any suggestions/recommendations as to how these problems can be addressed?

_____

_____

_____

3. Evaluation of the previous system

3.1.1 Do you know that the mobile health care system has changed in the Bothaville district?

Yes	1
No	2

→ go to 3.2, 3.3 & Sections 5, 7 - 9. ☐

3.1.2 If yes, do you know why the previous system was changed?

_____ ☐☐

_____ ☐☐

_____ ☐☐

3.2 What would you view as the advantages of the previous system of mobile clinics?

_____ ☐☐

_____ ☐☐

_____ ☐☐

3.3 What would you view as the disadvantages/shortcomings of the previous system of mobile clinics?

_____ ☐☐

_____ ☐☐

_____ ☐☐

3.4.1 Were these problems solved with the implementation of the mobile stopping point system?

Yes	1
No	2

☐

3.4.2 In which ways were these problems solved?

_____ ☐☐

_____ ☐☐

_____ ☐☐

4. Evaluation of the new system

4.1 What would you view as the advantages of the new mobile stopping point system?

_____ | | |

_____ | | |

_____ | | |

4.2 What are the disadvantages/shortcomings of the new mobile stopping point system?

_____ | | |

_____ | | |

_____ | | |

4.3 How can these shortcomings be rectified?

_____ | | |

_____ | | |

_____ | | |

4.4.1 Do you think that the change has been for the better or for the worse for your health facility?

Better	1
Worse	2

4.4.2 Please explain you answer.

_____ | | |

_____ | | |

_____ | | |

4.5.1 Do you think that the change has been for the better or for the worse for the clients of the mobile service?

Better	1
Worse	2

4.5.2 Please explain you answer.

_____ | | |

_____ | | |

_____ | | |

55 - 80, 1 - 6

4.6.1. Do you think that the change has been for the better or for the worse for the personnel delivering mobile health services?

Better	1
Worse	2

4.6.2 Please explain you answer.

5. Effects/influences of the change in mobile health services

5.1 What were the effects/influences of the change on your health facility/service during its implementation?

5.2 How were these influences coped with?

5.3 In what way does the change in mobile health services influence the functioning of your health facility/service at the moment?

5.4 In which way(s) are you addressing these influences?

5.5 Which necessary adaptations to the new system of mobile health are, in your opinion, the most difficult to address?

_____ [ ][ ]

_____ [ ][ ]

_____ [ ][ ]

5.6.1 Do you find that farmers bring their workers to your health facility/service instead of taking them to the mobile stopping points?

Yes	1
No	2

[ ]

5.6.2 What could be the reason(s) for this?

_____ [ ][ ]

_____ [ ][ ]

_____ [ ][ ]

5.6.3 How does this influence the health care delivery at your health facility?

_____ [ ][ ]

_____ [ ][ ]

_____ [ ][ ]

5.6.4 Would you like to make any suggestions as to how this problem can be solved?

_____ [ ][ ]

_____ [ ][ ]

_____ [ ][ ]

5.7.1 In your opinion, do patients referred from rural areas experience any problems in getting to your health facility?

Yes	1
No	2

[ ]

5.7.2 Please explain these problems and their seriousness.

5.7.3 How can these problems be solved?

5.8 How do people get to your health facility/service when referred?

5.9 In your opinion, how should the system of patient referral from rural areas to district surgeon/hospital services function?

5.10.1 Have you encountered any complaints from referred patients since the mobile health system was changed?

Yes	1
No	2

5.10.2 What complaints have you encountered?

5.10.3 Do you have any ideas on how these complaints can be addressed?

6. Planning

6.1.1 Would you say that adequate planning was undertaken before the new system of mobile health was implemented?

Yes	1
No	2

6.1.2 Please explain your point of view on this matter.

6.2 Were you consulted during the decision making process of the new mobile health system?

Yes	1
No	2

6.4 How were you informed of the change in the mobile health system?

7. Communication and community involvement

7.1 How is information regarding health matters disseminated in your community?

7.2.1 Do you encounter any problems in communicating with your superiors?

Yes	1
No	2

7.2.2 Please explain your answer to the previous question.

_____ | | |

_____ | | |

_____ | | |

7.3.1 Do you encounter any problems in communicating with clients from the rural community?

Yes	1
No	2

7.3.2 Please explain your answer to the previous question.

_____ | | |

_____ | | |

_____ | | |

7.4.1 Please list the ways in which community members participate in health matters in Bothaville.

_____ | | |

_____ | | |

_____ | | |

7.4.2 Please list the ways in which community members participate in health matters in the Bothaville district.

_____ | | |

_____ | | |

_____ | | |

7.5 With regard to community involvement in health matters, how necessary are each of the following:

	Necessary	Uncertain	Unnecessary	
Clinic committees	1	2	3	
Hospital boards	1	2	3	
Community health forums	1	2	3	
DFC	1	2	3	

8. Suggestions

8.1 How would you describe the relationship between your health facility/service and the mobile health providers?

8.2 Are there any suggestions that you would like to make as to how co-operation between the mobile health services and your health care facility/service can be improved?

8.3 Are there any suggestions that you would like to make as to how co-operation among the different components of health care in Bothaville and the district can be improved?

8.4 Do you have any suggestions as to how the functioning of mobile health services can be improved?

8.5 Do you have any suggestions as to how the health system in Bothaville-Kgotsong and the district can be improved?

9. Integration of services

9.1 In your opinion, what is the possibility for the integration of all the health care components (hospital, district surgeon services, fixed clinics and mobile health services) into one service in Bothaville and the district?

9.2 What are the factors at present hampering such integration?

9.3 Do you have any suggestions as to how such an integration, under one authority and management, can be accomplished?

9.4 What would be the advantages of such a system for...

9.4.1 the health care personnel (different categories)?

9.4.2 the organisation of the health service?

9.4.3 the patient?

9.4.4 the community/public?

9.5 What should the organisational authority structures of such an integrated service look like?

9.6 What should the management structure of such an integrated service look like?

9.7 How should such a process of integration be initiated or phased in?

10.1 Are you aware of the Co-ordinating Forum for Health Services in Bothaville?

Yes	1
No	2

10.2 If yes, what do you view as the function of this Forum?

10.3 In your opinion, is the Forum fulfilling its purpose?

Yes	1
No	2

10.4 Please explain your answer and possible problems.

_____ | | |

_____ | | |

_____ | | |

Thank you for your participation!