Action for Health in Bothaville

A Situation Analysis of Health in Bothaville

Initiative for Sub-District Support

Health Systems Trust

June / July 1998

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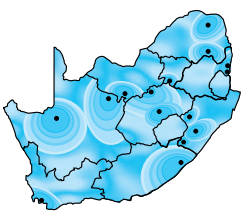

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Contents

Acknowledgements

- Bothaville health workers
- Bothaville and Kgotsong Local Council
- Department of Health, District Health Services, Region C, Welkom staff
- Centre for Health Systems Research & Development-University of the Free State
- Department of Health, Information and Research, Bloemfontein

Preface

This publication is one of a set of technical reports produced by the Initiative for Sub-District Support (ISDS). They document rapid situation analyses in the different ISDS sites, namely Kakamas and Kalahari (North Cape), Mount Frere (Eastern Cape), Tonga and Shongwe (Mpumalanga), Underberg/Pholela/Impendle (KwaZulu-Natal).

This report describes the health situation and health service provision in the Bothaville sub-district. The aim is to provide an understanding of the current situation, identify gaps and provide the information for an objective and sustainable plan of action towards the development of District Health Services in urban and rural areas.

The report documents the main findings of the situation analysis and suggests activities and plans to improve the quality and equity of health care.

Introduction

The Free State initiated the process of developing a District Health System (DHS) in 1994. In 1995 a Provincial Facilitating Committee (PFC) and 6 Regional Facilitating Committees (RFC) were set up to stimulate the development of the District Health System.

In 1997 the province also adopted the ISDS as a project that would help to implement some of these policies. A decision to adopt the Bothaville sub-district for the ISDS was taken partly because of the complexities inherent to the fragmentation of health services there.

The launching of the ISDS in 1997 served to enhance the energy of the Regional Office to encourage the process of the integration of services towards a better and more accessible system for the people of Bothaville.

Several workshops and interventions have since been put in place and there has been some visible progress in the development of the DHS in the Tshepo District.

This document will include information from the reports of workshops and documents produced since the ISDS started in April 1997, supplemented by information from the Free State's Department of Health, the Centre for Health Systems Research and Development (University of the Free State) and the Bothaville/Kgotsong Local Council with a plan of action.

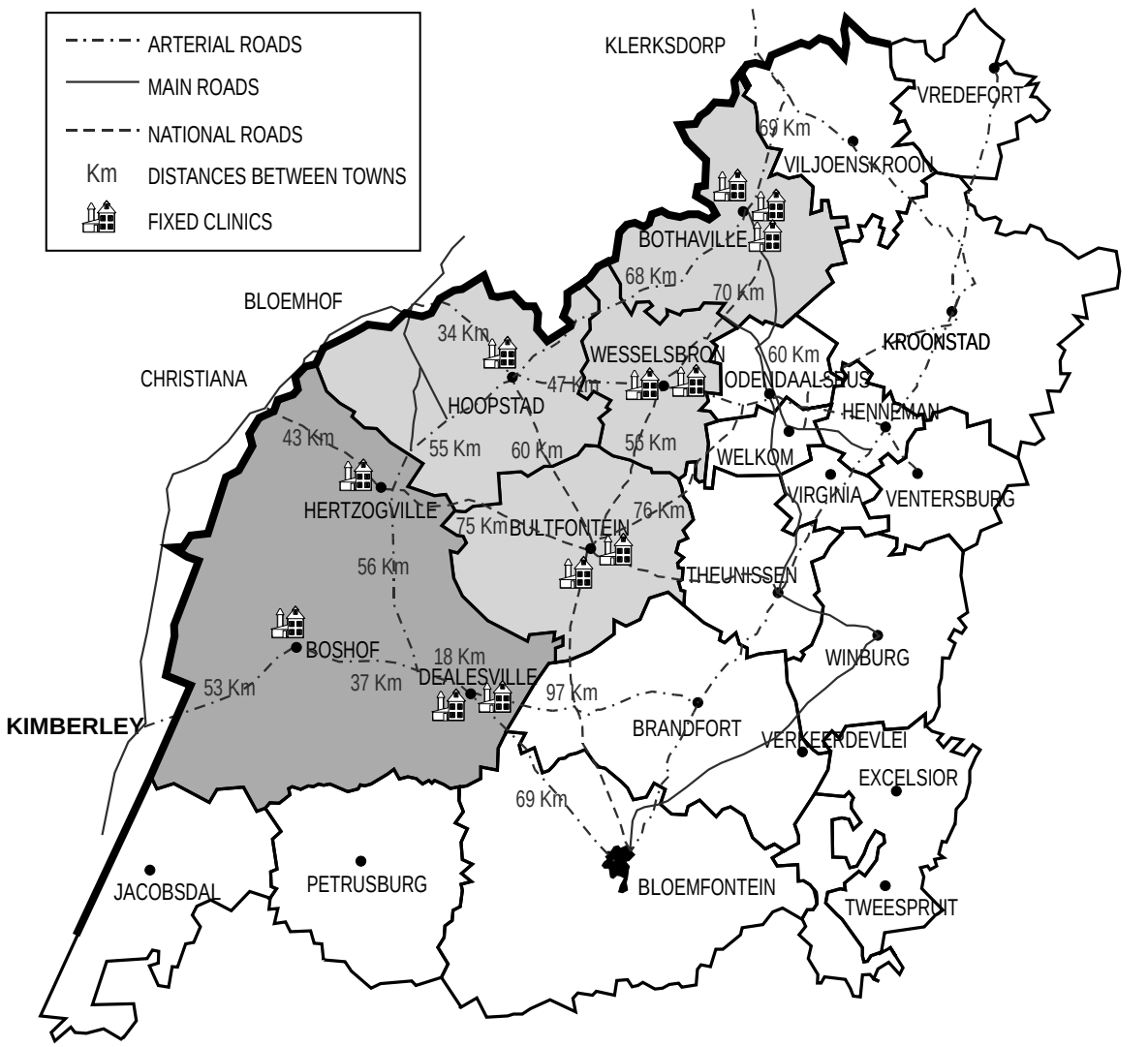
1. GENERAL DESCRIPTION OF THE AREA

1.1 Geography

Bothaville lies on the busy R30 road between Klerksdorp and Welkom. The railway line from Vierfontein to Bultfontein, via Wesselsbron, also passes through the town.

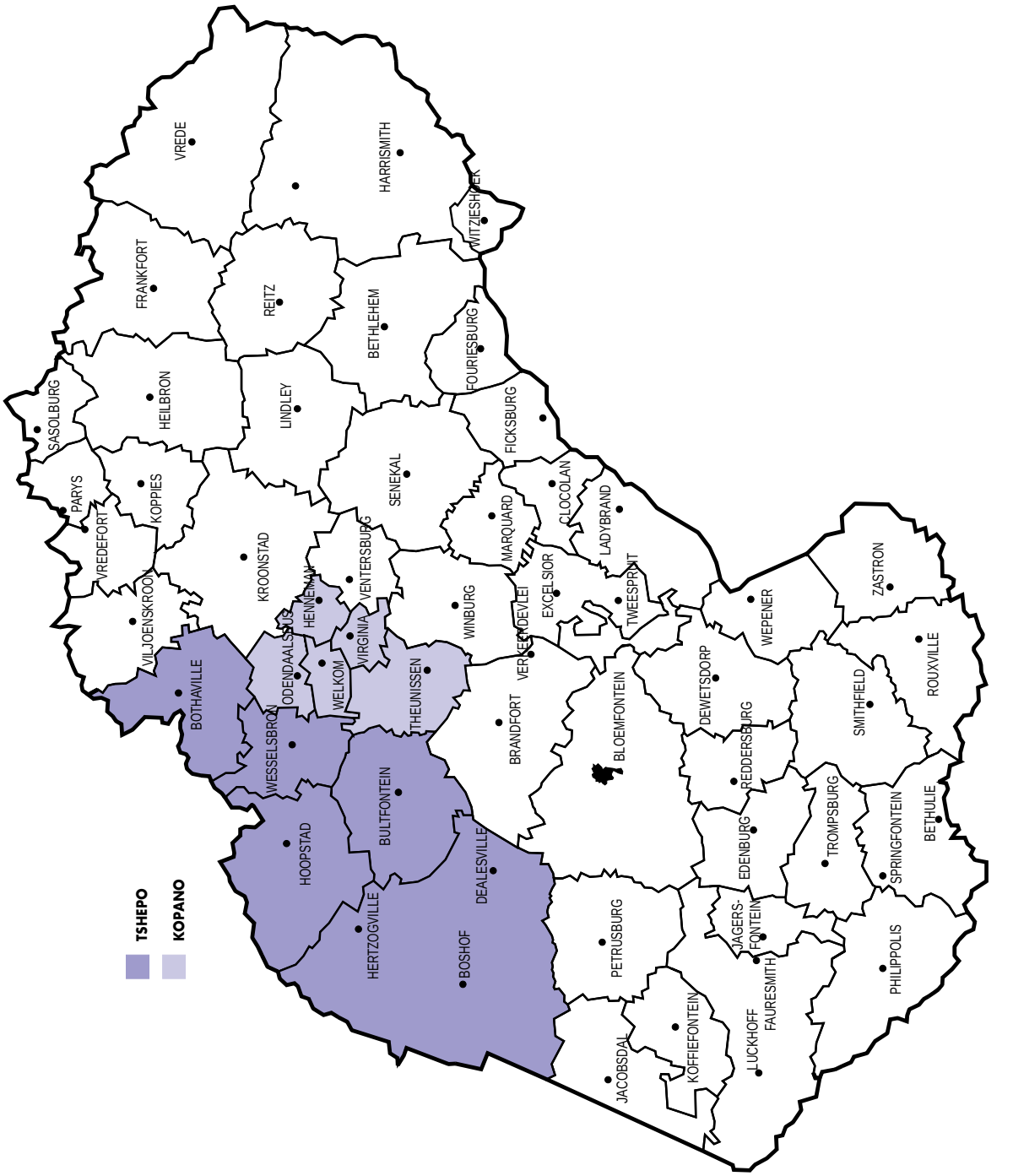
The sub-district of Bothaville consists of the urban area of Bothaville town, the neighbouring Kgotsong Township, and a large surrounding rural area with 802 farms.[1] The farms are fairly distributed throughout the fertile countryside of the district, without showing a concentration in a particular area. Region C is comprised of Tshepo and Kopano Districts. Bothaville is one sub district of the Tshepo District.

Geographical location of fixed clinics in Tshepo



[1] The other Tshepo sub-districts are Boshof, Hoopstad, Wesselsbron, Bultfontein, Hertzogville and Dealesville.

Region C


TSHEPO
KOPANO
VREDE
HARRISMITH
WITZIESHOEK
FRANKFORT
REITZ
BETHLEHEM
FOURIESBURG
SASOLBURG
HEILBRON
LINDLEY
FICKSBURG
PARYS
KOPPIES
SENEKAL
CLOCOLAN
VREDEFORT
MARQUARD
LADYBRAND
KROONSTAD
VENTERSBURG
ZASTRON
VILJOENSKROON
HENNENMAN
WINBURG
EXCELSIOR
TWEESPRUIT
WEPENER
VIRGINIA
VERKEERDEVLEI
BOTHAVILLE
ODENDAALSRUS
WELKOM
THEUNISSEN
BRANDFORT
BLOEMFONTEIN
DEWETSDORP
SMITHFIELD
ROUXVILLE
WESSELSBRON
REDDERSBURG
HOOPSTAD
BULTFONTEIN
TROMPSBURG
SPRINGFONTEIN
BETHULIE
EDENBURG
DEALESVILLE
HERTZOGVILLE
BOSHOF
PETRUSBURG
JAGERS-
FONTEIN
PHILIPPOLIS
KOFFIEFONTEIN
LUCKHOFF
FAURESMITH
JACOBSDAL

1.2 Demography

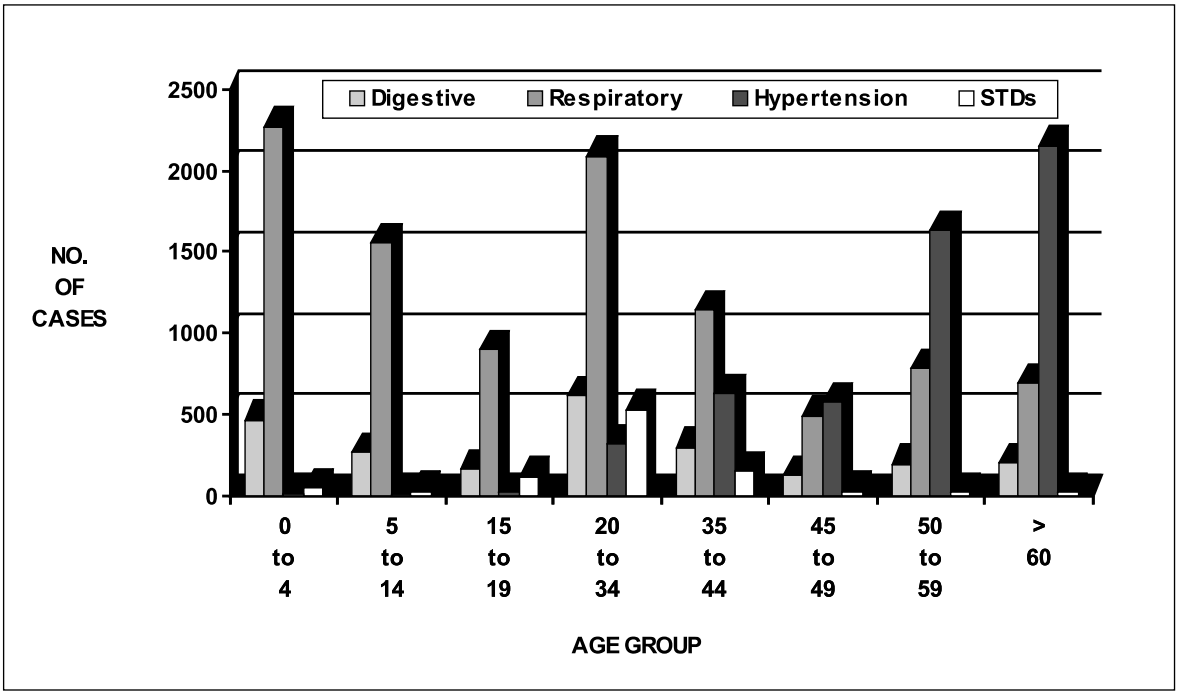
The available demographic information for Bothaville is not reliable. The population of Bothaville, according to the 1996 Census, is 85 000-100 000, which represents approximately 54% of the population of the whole of Tshepo district. The Demographic Information Bureau, on the other hand, estimated the population of Bothaville as follows:

Table 1: Population distribution in Bothaville, 1997

Urban	%	Rural	%	Total
21 852	30	51 504	70	73 356

Source: Demographic Information Bureau, 1997

Figure 1: Distribution of Diseases by age in Bothaville, 1997



Source: Department of Health, Information and Research, Bloemfontein

According to the Development Bank of Southern Africa (DBSA), the demographic breakdown reflects that the rural population is approximately three quarters (70%) of Bothaville's sub-district population and 44% of this represents children under the age of 14 (DBSA, 1995). This is a clear indication that these should be regarded as priority areas when planning health services for the sub-district.

There are also a significant number of women of childbearing age, both in urban (28,6%) and in rural areas (19.7%). People over 65 years of age, however, only represent 4.2% in urban areas and 2,7% in rural areas.

1.3 Socio-economic profile

The history of Bothaville town goes back to the Anglo-Boer War. It is a place with considerable economic resources and has been marked by political and economic power struggles over the years. Unfortunately, there is much less written documentation dealing with the history of Kgotsong Township, or of the rural workers.

Agriculture is one of the main sources of wealth in the Bothaville sub-district, and it is actually known as the South African capital of maize. Its excellent soil also produces sunflowers, groundnuts, soya beans and sorghum. Sheep farming is also an activity on of Bothaville's 802 farms.

There are also industrial and commercial activities, with factories that produce peanut butter, agricultural equipment and fertiliser. Negotiations are underway for the opening of a titanium mine during this year, which might reduce the unemployment rate amongst adults, estimated to be as high as 33%.

The per capita income in Bothaville town is higher than in the neighbouring Kgotsong Township. However, the total income will most likely be higher in Kgotsong because of the considerably larger population.

Table 2: Distribution of income in Bothaville sub-district

Income per year (in Rands)	Percentage
None	25. 5
1 - 999	8. 2
1 000 - 2 999	16. 9
3 000 - 9 999	20. 3
10 000 - 69 999	24. 6
70 000 - 299 000	4. 4
300 000 - >500 000	0. 07
TOTAL	**100.0**

Source: Development Bank of Southern Africa (DBSA), 1995

The Supplemental Living Level (Bureau of Market Research, UNISA), is defined as a monthly household income of approximately R220. Using this as the indicator of extreme poverty, and using an arbitrary figure of R 2 999/month as the cut-off for less severe poverty, we can conclude from the data in *Table 2* that 50,6 % of the population in Bothaville is 'extremely poor', and a further 35,3% lives in "less severe poverty".

These statistics undermine the image of the sub-district as a rich and prosperous area, and emphasise the large wealth gap, which, as in most other parts of the country, is a gap between blacks and whites.

1.4 Provision of Basic Services

1.4.1 Housing and Urbanisation

The communities of Kgotsong and Bothaville were administered separately due to previous government policies. Surveys done by the Department of Spatial Planning in 1995, indicated that there were 2 919 permanent houses and 3 291 temporary structures in Kgotsong. Current data shows 4 747 permanent houses and 3 633 informal structures. A local government Work Plan proposes the building of 1 000 new houses over two years.

1.4.2 Water

Based on municipal data, 60% of homes in Bothaville town and Kgotsong have water connections, and the rest use communal taps. There is no information on the number of families per tap, or the distance between the houses and the communal taps. The high incidence of conditions like diarrhoea and scabies is an indication that access to clean water is still a problem for many people in Bothaville.

Table 3 summarises the situation in relation to water supply, and shows that a large number of rural families do not have access to clean water.

Table 3: Water Supply in Bothaville town, Kgotsong and the surrounding Rural Areas for the Black and White population groups.

Residential Area	Population Group	Level of Water Supply Service (%)			
		In House	On Site	Public Tap	Informal
Bothaville Town	Black	99	1	0	0
	White	100	0	0	0
Kgotsong	Black	19	34	43	4
	White	0	0	0	0
Rural Areas	Black	3	20	36	41

Source: Development Bank of Southern Africa, 1995

1.4.3 Sewage and sanitation

Also according to the Municipal Health Office, approximately 40% of houses in the sub-district use the bucket system. The rest are connected to a waterborne system (see *Table 4*).

Table 4: Level of sanitation service provision in Bothaville, Kgotsong and rural areas

Residential Area	Population Group	Level of Sanitation Service (%)				
		Flush	Bucket	Pit	None	Communal[2]
Bothaville	Black	99	1	0	0	0
	White	100	0	0	0	0
	Coloured	0	0	0	0	0
Kgotsong	Black	53	4	36	7	22
	White	0	0	0	0	0
	Coloured	53	6	35	6	24
Rural Areas	Black	19	0	81	?	?

Source: Development Bank of Southern Africa, 1995

Of concern is the relatively high number of families sharing toilets (22% of the Kgotsong population). They are subjected to great inconvenience and often to unhygienic conditions. It is also likely that very few of the pit toilets are properly designed to provide adequate hygiene.

1.4.4 Electricity

According to the Bothaville municipality, only 10 % of Kgotsong houses are presently not electrified. However, the DBSA indicates a far lower degree of electrification in Kgotsong. This may be due to a recent electrification programme started after the DBSA data was gathered. There are plans to connect the rest of the town by the middle of this year. There are also plans, supported by the community, to set up a system of public illumination of the streets with high mast lighting. In spite of the electricity coverage, the main source for cooking is still wood and coal.

1.5 Roads

Most of the roads to the farms are gravel, and very difficult to travel on in the rainy season, which produces serious problems in terms of health provision by the mobile services. Roads in town are generally in good condition, with the exception of the gravelled road that links K. Maile Clinic to the main road in Kgotsong.

1.6 Schools and education

There are 8 primary schools and 6 high schools in town. In the rural area, there are approximately 95 farm schools and 2 agricultural schools. The large number of rural schools can be linked to the fact that children are students in the morning and farm workers in the afternoon, so the construction of schools in the rural areas has a strategic and economic purpose. There are 7 officially registered crèches in the urban area and none in the rural area.

Figures regarding educational levels in Bothaville show that 97% of its population have not gone beyond primary schooling, with 46.9% of this group only reaching grade 5 (Source: DBSA, 1995).

[2] The last column refers to both bucket and pit toilets, which are shared by two or more families.

2. HEALTH STATUS AND HEALTH PROBLEMS

2.1 General

A lack of reliable health information is one of the major problems in Bothaville. This document is an attempt to overcome the fragmented and incomplete information of a fragmented health system.

In 1995 the Free State developed a new information system, based on a "tick-sheet". After two years of implementation, there is now some aggregate information available at the Free State's Health Department Information and Research Office. This chapter will be based on the information extracted from this database. In the Bothaville sub district, data is collected by:

2.2 Mortality Indicators

Perinatal Mortality (PNM): is defined as a death of a foetus or a baby, which occurs from 28 weeks of gestation to the first week after birth.

Table 5. Perinatal Mortality In Region C and Bothaville-Free State, 1997

Place	Perinatal Deaths	Births	Rate (PNMR)
Region C	10	2 460	14. 2
Bothaville	35	396	25. 1

Source: Department of Health, Information and Research, Bloemfontein

Table 5 points to inadequate antenatal care and sub-optimal management of labour.

Neonatal Mortality (NNM): is defined as a death of a baby, which occurs from birth until 28 days.

Table 6. Neonatal Mortality Rate in Region C & Bothaville-Free State 1997

Place	Deaths	Births	Rate (NNMR)
Region C	48	2 460	19, 5
Bothaville	15	396	37. 9

Source: Department of Health, Information and Research, Bloemfontein

Table 6 shows a higher NNMR in Bothaville, compared to the whole of Region C.

Infant Mortality (IM) : Refers to children who die before they reach their first birthdays.

Table 7. Infant Mortality Rate (IMR) in Region C & Bothaville, Free State in1997

Place	Deaths	Births	Infant Mortality Rate (IMR)
Region C	29	2 460	52. 4
Bothaville	129	396	73. 2

Source: Department of Health, Information and Research, Bloemfontein

National figures from 1995 reported an IMR for African rural infants of 86 and 94 per 1000 live births. In Bothaville, according to Table 9, the IMR is 73.

Under Five Mortality:

Estimates of mortality for under fives are very unreliable. Overall, it is estimated in SA to be between 115 and 120, with a rate of 139 per 1000 live births for rural children (Source: Children and women in SA – a situation analysis – UNICEF 1993). This means that one in every seven children born in rural areas of the country dies before reaching the age of five. There is no available data for this population of Bothaville but, because of common denominators with the rest of the province, it can be assumed to be similar to the rest of the country.

Maternal Mortality (MM): refers to the deaths of pregnant women or of mothers up to 42 days after delivery caused by any condition related to the pregnancy or any complication during or after delivery.

The Maternal Mortality in Bothaville per 100 000 live births is estimated to be 44, which is not significantly different from the 1992 national figure of 58 for African women used by the Department of National Health and Population.

2.3 Birth Registration and the Notification of Deaths

The registration system of births and deaths is a problem that needs to be investigated. In 1995 it was estimated that 59% of all African children did not have birth certificates (CASE survey, 1995). This has obvious implications for the accuracy of data. To register a baby is free if it is done within a year after birth. Thereafter, registration costs money. According to PHC mobile clinic nurses, rural people say that it is unaffordable and therefore they do not register their children.

Information about recorded deaths in Bothaville provides the following elements:

Table 8. Recorded deaths in Bothaville, 1997

Total			Urban			Non-urban		
M	F	T	M	F	T	M	F	T
253	210	463	176	138	314	77	72	149

Source: Demographic Information Bureau, 1997

Under-registration of deaths in rural areas is a reality in Bothaville. Many factors are involved in this issue, such as, lack of transport, costs, cultural traditions and others.

Table 9 shows patients who died at sub-district level. The number of deaths due to digestive and respiratory diseases is quite high, due, in part, to late arrivals at hospitals. Inappropriate management of certain conditions, referral problems and lack of transport could be also responsible for the deaths reported. There is a worrying and irrefutable under-diagnosis and/or under-reporting of AIDS.

Table 9 Causes of death in Bothaville, 1997

Disease	No. of deaths
Digestive	13
Respiratory	28
Hypertension	4
Tuberculosis	8
AIDS	1
Perinatal	3
Complications of pregnancy, child birth & post-delivery	13
Accidents, trauma, etc	15

Source: Department of Health, Information and Research, 1997 (tick register)

2.4 Health problems

2.4.1 Qualitative information

In April 98, health workers at all health institutions in Bothaville were approached for information about their experiences and their impressions of the most frequent diseases in their everyday work.

It was mentioned that not a week goes by without a Kwashiorkor case arriving at Bothaville Hospital, from remote rural areas. Nurses say that these cases are the tip of an iceberg, since underweight and stunted children are frequently in contact with the health services.

The most commonly mentioned cause of clinic visits and hospitalisation in children was diarrhoea. Upper respiratory tract infections and pneumonia's were also said to be frequent in both adults and children.

In spite of recent improvement in the water situation in the township, there is also a high incidence of scabies, worm infestation and other skin lesions indicating a lack of hygiene.

Sexually Transmitted Diseases (STD's) were also said to be a large part of the clinics' workload. Linked to this, are the increasing numbers of HIV positive and AIDS patients with complications like diarrhoea.

Nurses and doctors cited Tuberculosis as a major public health problem in Bothaville. The number of sputum tests required has risen, but still a large number of x-rays are taken.

Chronic diseases, in particular hypertension and diabetes, also seem to be a major problem. The number of referrals from clinics to the District Surgeon and other doctors is very high. One problem mentioned by nurses, is that they cannot renew prescriptions for hypertensive or diabetic patients and are obliged to refer them to a doctor every three months. The District Surgeon renews the prescription of rural patients without seeing the patient.

Burns are frequently seen at the hospital casualty department. However, trauma and wounds as a result of violence are not considered to be a serious problem, compared with other areas. It was also mentioned that psychiatric conditions, like schizophrenia are common in Bothaville. Child abuse did not emerge as a major problem.

2.4.2 Quantitative information: Notification system

The disease profile of Bothaville for both adults and children is shown in Table 10 below.

Table 10 Disease profile per age in Bothaville, 1997

	Cases by Age								
Disease	**0-4**	**5-14**	**15-19**	**20-34**	**35-44**	**45-49**	**50-59**	**+60**	**Total**
Digestive	461	263	156	609	294	118	193	195	2 289
Respiratory	2 272	1 554	894	2 088	1 140	487	780	690	9 905
Skin/subcut.	388	537	247	628	257	124	203	221	2 605
Nutritional	232	43	10	32	24	13	13	23	390
Hypertension	9	11	16	318	626	576	1 634	2 152	5 342
Diabetes	1	4	2	49	87	59	218	272	692
Tuberculosis	94	115	33	110	102	27	54	39	574
AIDS	3	3	6	32	4	3	4	2	57
STD	41	25	112	526	143	22	21	14	904
Perinatal	1	0	0	8	1	1	2	1	14
*Complication**	2	0	11	37	5	0	2	0	57
Accidents, trauma, etc.	34	88	34	103	56	18	38	24	395

** Complication of pregnancy, child birth & post-delivery*
Source: Department of Health, Information and Research, Bloemfontein

Table 10 and Figure 2 confirm what was mentioned by the staff, i.e. respiratory and skin diseases are affecting large numbers of the population of all ages. However, they appear to be more prevalent amongst children under 5 years. Whilst adults contract a number of digestive diseases, children usually only suffer from diarrhoea. There are no statistics on the number of cases of complicated diarrhoea with moderate to severe dehydration. Nutritional problems affect mostly young children.

Hypertension and diabetes are conditions of the elderly. There is no data available about other chronic conditions like epilepsy. However, the reported chronic diseases represent less than 10% of the population of Bothaville, which is in line with the national estimates.

Obviously, there is under-diagnosis of HIV/AIDS; probably its complications are reported as independent conditions like gastro-enteritis or respiratory infections.

The number of STD cases does not appear to be very high. However, it is of concern to note that there were 41 cases in children under 5 years old and 25 cases in children under 14 years old. If these figures are correct, child abuse can be declared a major problem in Bothaville.

Only 14 cases of ill babies were reported. This does not correlate well with the PNMR for the same period.

Bothaville's wealth and prosperity has not resolved the health problems of the majority of the population. The most significant and frequent diseases are linked to poverty and underdevelopment. In the rural areas, these diseases are compounded by the poor access to services and lack of follow-up.

3. PROGRESS TOWARDS THE IMPLEMENTATION OF A DISTRICT HEALTH SYSTEM

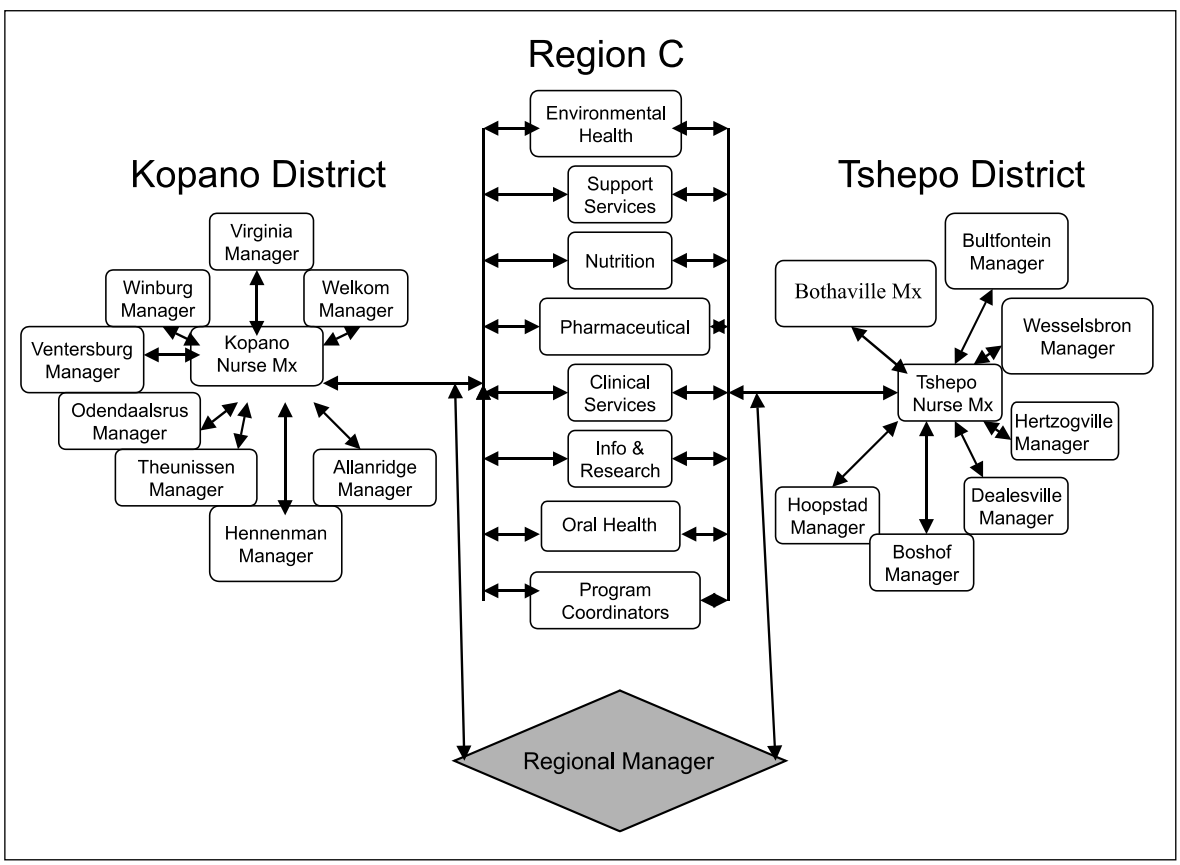
3.1 Provincial and regional initiatives

In its endeavours to develop and implement a District Health System in the Free State province, a Provincial Working Group for District Health Systems was replaced, in 1995, with a Provincial Facilitating Committee (PFC) and 6 Regional Facilitating Committees (RFC). Establishing health regions was a countrywide initiative and most provinces, including the Free State, saw it as a stepping stone towards a District Health System. The main task of both the PFCs and RFCs was to ensure the involvement of all stakeholders and facilitate the development of a District Health System.

The creation of a district-based health care system implies decentralised management of health services to the district level. One of the main objectives of this system is to guarantee the delivery of health services based on the PHC approach and to ensure integrated and comprehensive services to overcome fragmentation and duplication.

The Bothaville sub-district belongs to the Tshepo District, one of the two districts of Region C (Tshepano). In June 1996, a Deputy Director, Alida Zwiegelaar, was appointed to establish the regional office in Welkom. The organogram of the regional office has changed three times since then, as part of the process of finding the most functional and efficient structure to serve the district. Ms Morigihlane was appointed as the Acting District Manager for the Tshepo District.

Figure 3 : The organogram of Region C (Tshepo and Kopano Districts).



3.2 Overcoming Fragmentation in the Tshepo District

The various health services in the Tshepo district are very fragmented. There are multiple health rendering authorities as well as multiple lines of accountability.

Tshepo has two hospitals managed separately, although they both fall under the provincial Department of Health. There are 12 clinics in various towns and townships that are managed by seven separate local authorities. There are seven mobile services (also managed separately) under the provincial Department of Health and various other health services (e.g. laboratory, ambulance, old- age homes) that are run through separate management structures. Seven District Surgeons paid by the provincial Department of Health provide services independently of the management or co-ordination of any district structure.

The health services have also been fragmented along racial lines, with some facilities and services having historically catered for certain racial groups. Doctors and nursing management are predominantly white.

Given the lack of enabling legislation and policy, it has not been possible to develop a District Management Team. However, as a result of three workshops, a District Health Co-ordinating Team has been established. The composition of the team formed is as follows:

- Chairperson of the DFC (1)
- One representative of the District Surgeons and private GPs (1)
- One representative each from the Bothaville and Hoopstad Hospitals (2)
- The Regional Manager (1)
- The Assistant Director for Tshepo (1)
- One representative from each of the seven Local Authorities (7)
- One person to represent clinic nurses (1)
- One representative from the provincial Department of Health (1)

The principles that guide this Co-ordinating Team were defined as:

- Representative of all stakeholders and all functions
- Lean and mean, clear roles and functions; strong leadership and a way of ensuring accountability
- The team is an interim one
- Work in consultation with DFC
- Must ensure it has provincial support
- Guided by the philosophy of PHC approach

Since then the team has held three workshops, although with fluctuating attendance. With regard to the LAs, significant progress was made after they agreed to nominate a representative each, with a mandate to make decisions. At the last workshop held in April, all the LAs were represented, but there were no representatives of the private sector for any of the sub-districts.

At this workshop in April, an exercise in joint budgeting and the co-ordinated ranking of priorities for building and upgrading, made the participants feel more as though they were all part of one district. Plans for each sub-district were drafted, and the final versions will be discussed at the next workshop in May.

3.3 Situation in the Bothaville sub-district

The Bothaville sub-district is composed of a variety of different health providers and management structures working independently of each other. Progress with integration is slower than in most other places because the culture of working together is not well developed. When the development of the DHS started, the different health providers began to be aware of the needs of others as they sat together to discuss health provision for the community they were all serving. The process of understanding and respecting each other is still at an early stage.

3.3.1 Workshops in Bothaville

Two workshops were held in Bothaville, to initiate the process of implementing the District Health System and to explain the initiative for Sub-District Support. The first was held in July 1997, and the second in September of the same year.

At the July workshop the existing facilities and services in Bothaville were mapped out, after the aims of the DHS initiative were summarised. Thereafter an analysis of the strengths, weakness, opportunities and threats helped the participants to start seeing the reality of service provision. A summary of this analysis follows below:

Strengths

Good basic infrastructure in place

Good range of services offered in clinics

Motivated personnel

There is knowledge and skills

There are facilities and personnel

There is basic equipment

Community Health Committees in place

Weaknesses

There is poor communication both internally and externally

Fragmented services

Poor marketing of services (ill-informed community)

Inadequate drug and consumables supply

Poor stationery supply

Referral pattern unclear

Shortage of personnel - high workload

Poor working relationship with the general practitioners

Hospital treats patients referred by session doctors only

Lack of school and youth health services

Resistance to change

Transport for patients (community uses taxis)

Inaccessibility of health care for rural and farm communities

Lack of health educators

No doctors after hours (emergencies)

Facilities too small

Lack of consistency in patient records

Opportunities	Challenges
Help from ISDS	Migration of skilled workers out of Bothaville
Help from region	Closing down of mines leading to unemployment
There is good community involvement	Increasing family violence
Plan for exploration of other services	Increasing crime rate
Supportive DFC	Drug abuse and child abuse
Can develop health campaigns	Drought and extreme weather conditions
Plan for a weekly newspaper to keep community informed	Change in Health System related to posts and service conditions – makes staff feel insecure

The workshop concluded that fragmentation was the main obstacle and that better co-ordination in the delivery of services was necessary. It was proposed that monthly co-ordination meetings between the service providers in Bothaville should be used to try to resolve the problems, and that the presence of the Assistant Director (Acting District Manager) was required.

The following problems were identified by nurses who attended the monthly co-ordination meetings:

- the meeting format was uninteresting (routine and mechanical)
- appropriate language was not used during the meeting
- the agenda for the meeting was not appropriate and instead mimicked the structure of most meetings in Bothaville

The following was resolved to address some of the concerns:

- communication to nurses in the clinics and to other stakeholders should be improved
- the meetings should be held in English and the minutes should be written in English
- the time of the meetings should change so that private practitioners could also attend

3.4 Community participation

One of the resolutions of the September workshop was to improve the representation of the Community Health Committee, since it comprised of professionals and few community members. In January 1998 a new executive for the Community Health Committee was elected and clinic committees for each clinic were elected. The establishment of those bodies will play an important role in redressing the gaps between the community and health workers. The empowerment of community members is one of the challenges in Bothaville. The chair of the Community Health Committee, Mr. Machatola, is the Principal of a school in Bothaville, which reflects the potential in terms of multi-sectoral community networking. He is also the secretary of the District Facilitating Committee of Tshepo District.

4. MANAGEMENT OF SUPPORT SYSTEMS

4.1. Financial management

Most services within the districts are financed through the regional office.

Table 11 Expenditure on health by Bothaville local authority, 1997

Total expenditure of LA	Total health expenditure of LA	% Health vs. total budget	Provincial subsidy for health to LA	Own Funds for health	% health budget subsidised by Province
R 24 393 121	R 4 050 104	16.6	R 1 395 101	R 2 655 002	34.5

Source: Town Clerk Office, Bothaville, 1997

As Table 11 shows, 34.45% of the LA health budget is subsidised by the Department of Health (DoH), the remainder is self-funded, which in comparison with other sub-districts puts Bothaville's LA in a privileged position. For example Hertzogsville is 100% subsidised and Hoopstad 95.58%. (Source: Town Clerk Office). This budget does not include the medicines and transport costs, also subsidised by the DoH.

The 1997/1998 expenditure review for the Tshepo District revealed the following (Department of Health, 1997):

- doctors' salaries absorb more than half of the district budget
- there is a high expenditure on medicines and oral health
- there is an unequal distribution of the budget within the district
- the population figures available are unreliable

(See Appendix 1: Expenditure review for Tshepo district – 1997/1998)

Table 12: Hospital Expenditure- Tshepo District (1 January 1997 to 31 December 1998)

Hospitals	Personnel (Salaries and benefits)	Administrative (Telephone, travel, SMT, etc. TV licences, water and electricity)	Stores & Livestock	Medicines (Drugs bandages, vaccines)	Equipment	Professional Services (Security services, laboratory tests, x-rays)	Miscellaneous (Pay outs to people for various reasons)	Total	%
Bothaville	3.281.6	67.3	246.9	303.7	96.3	231.6	58.1	4.285.5	55%
Hoopstad	2.545.7	18.2	175.7	268.7	123.3	220.4	45.4	3.397.4	44.22%
Total Hospitals	5.827.3	85.4	422.5	572.4	219.6	452.0	103.5	7.682.9	99.22%

4.2 Transport

Both the health workers and the general public cite transport as a problem in Bothaville. There is insufficient transport to meet the needs of patients referred between the services as well as for LA clinic personnel in the township to travel to meetings. Access from township and rural areas to Bothaville are a problem for both health workers and patients.

There is one ambulance for the sub-district controlled by the municipality. Two additional vehicles have been sub-contracted to the LA: one for dispatching specimens to the laboratory in Kroonstad and the other for transporting TB patients to the hospital for x-ray purposes only. There is a proposal to purchase a vehicle as a multipurpose means of transport for the clinics. A decision has also been taken to repair an old unused ambulance that is stationed at the LA garage and to allocate it to the clinics.

One of the vehicles is shared by two clinics on alternate days to carry blood results, drugs, correspondence and equipment to and from the clinics, and sometimes to take urgent patients to referral points.

There are three mobile clinic combies, which the nurses say are not in good condition especially for getting to the farms in wet weather.

4.3 Drug and vaccine supply, distribution and stock control

A Regional Pharmacist, based in the regional office in Welkom, is responsible for drug management. The provincial depot in Bloemfontein still mostly does the supply of drugs to the districts. However, at regional level, there is also a system whereby unused medicines that have been collected by supervisors within the districts are redistributed from the regional office in Welkom.

In Bothaville sub-district, the LA clinic in town will order the stock for all LA services under one code and then supply to the others clinics. The delivery is made at one central point, and from there is distributed to the other two clinics in the township. The hospital and the PHC mobile services order independently from the regional pharmacy and also collect from the provincial depot. The District Surgeon refers patients with their prescriptions to the two contracted chemists in Bothaville.

Although there have not been any complaints about lack of medicines, various other problems were identified. For example, overstocking of medicines (most with expired validity) in the LA town clinic was detected, indicating a lack of knowledge and skills regarding stock control. A form of stock control was introduced by the regional pharmacy to improve the system.

Vaccine distribution is also done from the Bloemfontein provincial depot. Cold boxes with the vaccines are collected and distributed to the districts.

With regard to expenditure on drugs, there is no mechanism to evaluate the prescribing practices in Bothaville, but overspending on medicines is evident. The Local Authority annual expenditure in 1997 was R 379 103 and expenditure on primary health care (mobile clinics) was R 140 298. Hospital drug expenditure was R 303 705 for the year 1997.

4.4 Communication

All clinics and the hospital in Bothaville have telephones that work adequately. The mobile clinics communicate by radio, but would like to be provided with cellphones so as to be able to communicate with the farmers.

The electronic communication situation is inadequate and not uniform. The hospital has six computers the town LA clinic, and one the PHC town clinic. Healthlink installed this computer in August 1997, through ISDS, but there is no e-mail connection due to technical problems reported to the regional network controller last year. To date no solution has been found to the problem. The same situation pertains at the District Surgeon's office.

The other two clinics in the township would also like to be connected to alleviate the problem of isolation that lack of transport sometimes brings in their work, but they mentioned that there is not enough security to set up a computer there for the moment. There is a plan to install burglar proofing soon, which will change the situation. The community also mentioned that the new illumination system would help to decrease crime in the area. These events will make it possible to install a computer and thus improve communication.

4.5. Health information system

Because of the fragmentation of services, the recording of routine health information is not standardised. Although the tick sheet was agreed on as the tool to standardise data collection, different services still use their own methods in addition to the tick sheet.

People also do not appropriately support the health information system because of the absence of feedback. There is therefore, a general lack of interest in the tick sheets, which leads to them being filled in, in most cases, by assistants or clerks who have not been trained to fill them in.

For example, at K.Maile clinic, an assistant spends her day filling in new tick sheets for the TB patients who come in each day for DOT. At Kgotsong clinic, two assistants are doing this job, but they were not able to give answers about the number of patients they saw in one day, as they did not even count the blank sheets at the beginning of the day.

It was also pointed out that the region has to pay for the paper and printing costs of the tick sheets from their budget.

5. DESCRIPTION OF HEALTH SERVICES IN BOTHAVILLE

Different health authorities provide health services in Bothaville: Local Authority, Provincial Government and Private Practitioners. There is one District Hospital run by the province through the regional office. The mobile rural health services render health care to 539 farms. Table 13 summarises the situation regarding health care facilities.

Table 13: Inventory of Health Care Facilities in Bothaville

Public Health facilities	Private Health Sector
Kgotsong Clinic	1. Seven private practitioner's practices in 3 separate surgeries
K.Mailie Clinic	2. Three in practice with District Surgeon
Bothaville Clinic	3. Three in private practice in Kgotsong
Mobile Clinics (3)	4. One private unlicensed hospital/care unit run by private doctors
Bothaville Hospital	5. Care Unit for ill private patients
District Surgeon Clinic	

Source: DoH, Welkom Regional Office, Human Resources Department, April 1997

5.1 The Public Sector

5.1.1 Human resources

While there seem to be enough health personnel in Bothaville, they are unevenly distributed (Table 16 below shows the distribution of staff in the sub-distict). The multitude of authorities also results in different employment conditions between LA nurses and the provincial ones. The mobile nurses' ratio is 1:6-8 patients and the hospital nurses' is 1:1.5 (in-patients), while both groups work for the same authority. The same phenomenon occurs within the LA clinics. Regarding the daily number of patients assisted, the LA town clinic is overstaffed compared to the township ones.

This year new appointments have not been authorised, and only well-motivated re-allocation will be accepted.

Table 14 : Human resources in Bothaville – Local Authority and DoH

Staff category	Local Authority	DoH
Chief professional nurse	**1**	**4**
Senior professional nurse	**8**	**5**
Professional nurse	**3**	**12**
Senior enrolled nurse	**0**	**1**
Enrolled nurse	**0**	**1**
Nursing assistant	**1**	**30**
General assistant/SASO	**7**	
Environmental health officers	**1**	
Ambulance assistants	**3 perm – 4 temp**	
Administrative clerk	**2**	**6**
Cleaner	**2**	**13**
Gardener	**1**	

Source: DoH, Welkom Regional Office, Human Resources Department, April 1997

5.1.2 Bothaville Hospital

The hospital in Bothaville has 54 authorised beds, out of which 30 are currently functioning because it is under renovation. A Chief Professional Nurse is the overall supervisor of the hospital. Seven private doctors staff the service on a session basis. There have been no full time doctors employed by the public for the past 18 years, until the recent arrival of two Cuban doctors. The Cuban doctors assess the public patients and the session doctors see the private patients, with exception of the on-call duties that are shared.

A contingent of 38 nurses makes for an in-patient/nurse ratio of 1.5:1. The theatres are non-functional at this stage, with the exception of one emergency theatre with two beds. Most surgical cases have to be referred to Welkom, including caesarean sections. The x-ray services, which were rendered by a radiographer from the Regional Hospital on a part-time basis, have been suspended. There is no laboratory, and all the samples and specimens go to a private laboratory in Kroonstad. There is one hospital pharmacist.

The system for registering patients is impractical and inefficient. Every time a patient comes for a follow-up visit or an X-ray, a new file is opened. There is no separate information available on in-patients and outpatients. There is also no information on patients who are treated for minor ailments and emergencies (stitches, plasters, etc.) and patients who do not have referral letters.

Tables 15 and 16, below, show some of the key statistics relating to the Bothaville Hospital.

Table 15: Statistics 1996/97-Bothaville Hospital

Year	No beds	No patients		Daily average no patients		Bed occupancy rate		Average stay in days	
		Pu	**Pr**	**Pu**	**Pr**	**Pu**	**Pr**	**Pu**	**Pr**
1996		3 859	494	30.7	2.8	56.8	5.2	2.9	2.0
1997	54	3 604	279	34.7	2.3	102.2	7.2	3.7	3.5

Source: Bothaville Hospital Statistics,1996/97 Pu = Public Pr = Private

Table 16: Diagnosis of patients in Bothaville Hospital, 1997

Diagnosis	**Number of cases**		**Total**
	Pu	**Pr**	
Medical	2 494	198	2 692
Orthopaedics	51	11	62
Surgery	131	50	181
Gynaecology	158	3	161
Obstetrics	856	7	863
Paediatrics	370	20	390

Source: Bothaville Hospital Statistics, 1996/97 Pu =Public Pr = Private

5.1.3 Mobile Units

The mobile service started in 1997 with one unit and 16 points. Since then, three mobile units have been visiting 539 farms, rendering promotive, preventive and curative services for the rural population on a 3-monthly basis. Recently, an agreement was reached between farmers, union representatives and health-care providers, that a smaller number of fixed points would be identified to allow the mobile clinics to make more frequent visits. Some farmers are now transporting their workers to these fixed points, using their own trucks, tractors, combies and buses. Four teams, each consisting of a sister and one or two nurses, visit these fixed points once a month. On some days the mobile goes to two or three points. The map of the sub-district on page 22 shows the location of the mobile clinic fixed points.

There are still some areas that are not covered, because the farmers are not part of the agreement, but the farmers' union network is trying to include them. Some farmers, who are unwilling to co-operate are taking their workers to town, instead of to the points.

Bothaville Rural Services

PHC Visual Aids used when giving Health Education to clients on the farms. (Bothaville)

Mobile units - at a high school on the farm, one of their largest points. Farmers bring their employees with all different modes of transport so as to ensure that the rural community do access the health care service.
(A very positive move by those farmers).

The main obstacle to the mobile system is the rainy season, when the road conditions make it impossible to get to some of the points. A two-way radio network has helped communications a lot, but the nurses would still like to have cell phones to contact the farmers.

The services the mobile clinics provide are:

- Family planning
- Antenatal Care
- Post-natal Care
- Child health: children are assessed monthly. Immunisation is up to date. Children at school are not reached, because they are not taken to the fixed points.
- Minor ailments: the number of patients has increased. A triage is carried out before they are assisted, to decide on which patients should be treated first.
- STDs: a sharp increase has been noted. Tracing of contacts is not possible.
- Chronic diseases: nurses are able to give treatment on the farms. They comment that it is time-consuming to write the prescriptions, which are written by the district surgeon.
- Geriatrics: few patients are seen because of the distances.

5.1.4 Local Authority Clinics

The three Local Authority (LA) clinics in Bothaville provide comprehensive services 10 hours a day, from 7.00 am to 5.00 PM. Three doctors serve all three clinics.

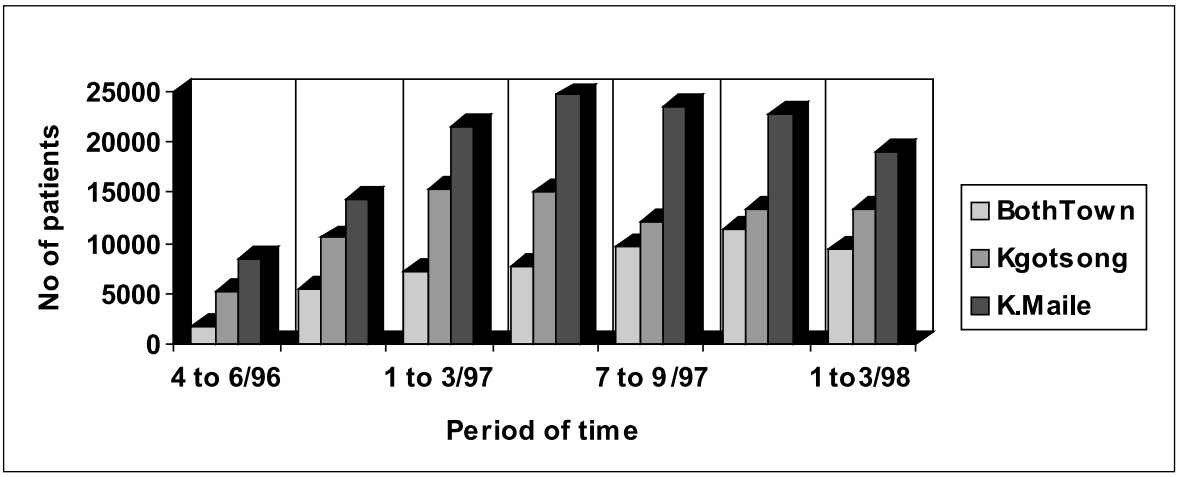
Table 17 shows the increase in the number of patients visiting the clinics since the introduction of free services for children and pregnant women in June 1994. The fact that comprehensive services are provided every day might be also a factor. The Bothaville town clinic was considered the main clinic with the other two as satellite clinics, but the two in the township see far more patients. All of them were built for preventive services, and need to be upgraded to meet current needs and the services expanded to include curative care.

Table 17: Number of patients per month at LA Clinics in Bothaville

Month	K.Maile	Kgotsong clinic	Bothaville clinic
April-June 1996	8412	5234	1775
November-Dec. 1996	14278	10531	5396
Jan-Feb-March 1997	21536	15373	7121
Apr-May-June 1997	24619	15123	7735
Jun-Aug-Sept 1997	23496	12132	9694
Out-Nov-Dec	22747	13308	11345
Jan-Feb-March 1998	19125	13336	9372

Source: Bothaville LA clinics' monthly statistics

Figure 4 : Bothaville LA Clinics' statistics from 1996 to 1998



K.Maile Clinic is definitely the busiest clinic, and even during the late afternoons it is always full. It serves the township residents and also those from the nearby neighbouring rural communities. Six professional nurses and three assistants staff it. This is inadequate for the number of patients. There is also inadequate space and security.

Kgotsong Clinic, with five professional nurses, is slightly under-utilised because it is situated at the entry to the township. It was built there, in front of the police station, for security reasons, without the needs of the community being taken into account.

Bothaville Clinic, with five professional nurses, is becoming busier, according to the statistics, possibly because it is more accessible for workers in town.

5.2 The Private Sector

The medical profession, in terms of numbers, is well represented in Bothaville. There are seven private practitioners in two practices, and one independent one. The private physicians render after-hours service at the hospital. They also use the hospital facilities for their own private patients (see table 18).

Table 18: Human resources in Bothaville – Private sector

Staff category	Number	Description/Name
Medical doctors	10	Dr Kgaje Dr Swart (also DS) Dr Coetzee Dr de Bruin Dr Bosh Dr Vorster Dr van Eeden Dr Meyer
Dentists	1	Dr Conradie (private patients and public also)
Pharmacists	5 (2 pharmacies)	
Optometrists	2 from Klerksdorp 3 days/week,consultancy open fulltime	
Optical dispensers	2	
Physiotherapist	1	
Occupational therapist	2	

Source: DoH, Welkom Regional Office, Human Resources Department, April 1997

5.3 Other Health Care Providers

5.3.1 Traditional Healers

An exploratory meeting between the Regional Liaison Officer and a group of traditional healers was held at the beginning of 1998. It was agreed that a meeting would be held in June to set up a forum to facilitate co-operation between the estimated 100 traditional healers including traditional birth attendants (TBA's) in the sub-district and the health authorities.

5.3.2 NGOs

a) "Huis Maranata" Old Age Home

This home is managed by a board composed of representatives of the OVV women's organisation and other sectors of civil society. It cares for up to 60 inmates with a staff of 42, which includes 16 nursing staff. It is funded by fees paid by the inmates and a small local authority subsidy.

b) South African Congress for Early Childhood Development
c) South African National Civic Organisation
d) Community Policing Forum
e) Bothaville Aids Support Group
f) Children's Disabled Group
g) Women's League
h) Kgotsong Disabled and Old Age Organisation

6. ASSESSMENT OF KEY HEALTH PROGRAMMES AND SERVICES

6.1. Maternal and Women's Health

The Provincial Antenatal and Postnatal Policy Guidelines have been availed to the clinics, but is only partially implemented. Antenatal Care services are provided daily at the Kgotsong and Bothaville town clinics. There is a greater concentration of patients on Mondays and Tuesdays in Kgotsong and on Thursdays in Bothaville town. K.Maile clinic in Kgotsong , on other hand, sees first visits or bookings on Mondays and repeats visits on Tuesdays and Thursdays. The nurses there believe this approach enables them to give general health education to the mothers and to cope with the workload.

During 1997 the Maternal Health activities in Bothaville were reported as follows:

Table 19: Maternal and Women's Health Statistics, 1997

No of deliveries	308	Category of person conducting delivery	
Place of delivery			
Delivered at hospital	286	Medical/Nursing	250
Delivered outside health facility	22	Traditional birth attendant	9
Delivered in a clinic	0	Unskilled person	33
Age of mother		ANC first visit	2 077
Under 19	38	before 20 weeks	206
>20	201	after 20 weeks	457
Low birthweight		Post-natal visits	84
< 2.5kg	28		
>2.5kg	239		
unknown	14		

Source: Department of Health, Information and Research, Bloemfontein, 1997

The 22 non-institutional deliveries are of mothers who bring their babies for immunisation or who have a post-partum problem. However, there is no doubt that the number of home deliveries is higher, especially in the rural areas. The true proportion of home deliveries still needs to be researched. The same applies to the teenage pregnancy rate. Although 12.4% is quite high, the true ratio might be higher.

The explanation given for the low number of post-natal visits recorded, was that the 10 days after delivery is defined as the post-natal care period, and all visits after this period are recorded under various other items. The importance and possible consequences of rural women having to attend post-natal clinics with new-borns, usually travelling in uncovered bakkies or trucks, is under discussion with the mobile nurses.

For deliveries, the district hospital can only accommodate two labour patients at a time. After delivery, they stay less than six hours, due to lack of space/beds to monitor these patients. Hence it is also difficult to detect postnatal complications and neonatal problems timeously, unless the mother comes to the clinic before the return date of six weeks.

The importance of the use of the Antenatal H10 form has also been emphasised, and the majority of the clinic personnel have been trained on the use of this form. The Maternal and Women's Health co-ordinator is involved in an ongoing process of evaluation of H10 implementation, and she is also monitoring compliance to the Provincial Antenatal

and Postnatal Policy Guidelines within the Tshepo District.

The self-study PEP programme has been encouraged so that all clinic and hospital personnel will be equipped with enough knowledge to resolve obstetric situations and complications with more confidence. Bothaville Hospital will serve as the teaching place for this course during 1997.

Family planing services in LA clinics are quite busy, with the Depo provera injection being the contraceptive of choice. By July 1997, 975 family planning visits had taken place.

6.2 Child Health and EPI

6.2.1. Extended Programme on Immunisation (EPI)

At present, the TB co-ordinator is in charge of the EPI. To achieve the goals of the EPI programme, the regional EPI co-ordinator developed a training plan for health workers. In Bothaville, as in the rest of the Tshepo District, personnel responsible for the programme were identified. 27 out of 30 LA nurses have been trained as well as three out of the four mobile clinic nurses. The training covered different aspects such as EPI disease surveillance, outbreak response, and maintenance of cold chain and data collection.

The urban population in Bothaville has good EPI coverage according to statistics. However, there is no doubt that a hidden rural child population still needs to be reached. During the last polio campaign in September 1997, the coverage in Bothaville was optimal (87% of children were vaccinated).

Table 22 below, shows that about 576 BCG's were administered during the year. Earlier in this document, it was mentioned that 308 deliveries took place in health facilities for the same period. This discrepancy may indicate the fact that rural deliveries are not recorded or that babies are delivered at home.

Table 20: Immunisation and type of vaccine -Bothaville urban and rural areas -1997

Type	Birth	First	Second	Third	Other	Total
BCG	576	-	-	-	15	595
DTP	-	534	451	371	-	1713
HBV	-	523	451	375	-	1430
MEASLES	-	369	-	-	30	852
TETANUS TOX	-	369	207	100	-	679
TOPV	589	527	435	376	-	2621
TOTAL	1165	2322	1544	1222	45	8472

Source: Department of Health, Information and Research, Bloemfontein, 1997

A total of 143 children under 1 year old and 559 under 5 years completed the vaccines in 1997.

6.2.2. Child Health

Child Health was part of the Maternal Health Programme, but recently became a programme on its own. A rapid survey carried out by the regional co-ordinator within Tshepo district, showed that the most frequent diseases coming to the clinics are pneumonia, diarrhoea and malnutrition, which are the same conditions which are the first three causes of children's death.

Only 35% of the nurses felt confident to treat these diseases. A course on paediatrics clinical skills and child health was organised by ISDS in Bothaville for nursing staff, with very good acceptance. The need for clear guidelines for the management and referral of paediatrics cases at primary level was also identified. A full week in-service course on clinical skills, given by the co-ordinator of the programme in Bothaville, also took place in 1998.

Services for children are rendered in a fairly comprehensive way. However, the immunisation and growth monitoring components are provided mainly on Wednesdays, because the community is used to this. Nurses however, affirm that they do not turn back patients on other days. Growth monitoring is done in a sub-optimal way: there is weighing and writing the weight, but no plotting or interpretation. The reason given is overload of patients for curative services, which allows no time for plotting, interpreting, advising and educating.

A total of 4 008 children was seen at the clinics, 770 first visits and 3 238 as follow-up visits, which means that more than 150 children per day received assistance in Bothaville last year.

There are no formal school health services provided on an ongoing basis, because of the shortage of personnel. School health services are provided as the need arises, when teachers refer children from the schools.

6.3. Nutrition

According to the results of a national study run by the South African Vitamin A Consultative Group (SAVACG), in 1994, one in four (23%) of all children aged 6 to 71 months were stunted and one in ten (9%) underweight. In Bothaville the situation is shown as follows in Table 21:

Table 21. Nutritional status of children visiting health facilities in Bothaville-1997

Degree of malnutrition	Number of children
>3%<50% without oedema	117
Underweight for age	236
Kwashiorkor/Marasmus	27
Total	380

Source: Department of Health, Information and Research, Bloemfontein,1997

According to *Table 21*, 117 children apparently did not have nutritional problems, 236 were underweight for their age and 27 presented with severe malnutrition. However, nurses' informal reports indicate a considerably higher number in the most remote rural areas, where the only meal is mealie porridge every day. It may be that many of them are not coming to the clinic for various reasons (transport, ignorance of the parents, etc.), and are therefore not recorded. Furthermore, to complete the nutritional parameters on the tick sheet requires careful training, which most people who fill in the sheets do not have. This may result in incorrect reporting.

The current provincial policy of the Protein Energy Malnutrition (PEM) scheme targets women, pre-school children, the chronically ill and the elderly who are malnourished or are in danger of becoming malnourished, by supplementing their diets with specialised products. However, products run out by the middle of the year due to budgetary constraints and a paternalistic approach to the implementation of the PEM. To transform this into a more cost-effective programme, the management has to be reviewed and the PEM has to be complemented with new entry and exit criteria.

6.4 Sexually Transmitted Diseases (STD's)

The high number of STD cases makes this programme a very important one. The introduction of the national policy regarding management of STDs at primary level is one of the main tasks of the regional co-ordinator of this programme. The problems around the correct implementation of the Syndromic Approach were identified at the STD/HIV training course organised by ISDS early this year, and in general, are easily resolved. Some treatments prescribed by the private doctors confirm their lack of adherence to the Syndromic Protocols. A recent verbal commitment was given by some of them to the regional co-ordinator.

Table 22, below, shows that vaginal discharge is the most frequent complaint. The diagnoses of ulcers and cervicites are missing because of a lack of speculums at the clinics.

Table 22: STD's at Bothaville's clinics - 1997

Syndrome	Unknown	<20 years	20 and older	Total
Urethral discharge	0	1	189	190
Vaginal discharge	5	10	653	668
Genital ulcer	0	3	93	96
Pelvis inflammatory disease	1	1	90	92
Other STD's	4	9	204	217
Total	10	24	1 230	1 263

Source: Department of Health, Information and Research, Bloemfontein,1997

At K. Maile clinic, 15% of all conditions treated per month are STDs. The report of only 190 Uretral discharges may be a reflection of poor partner notification, sympathetic counselling, under-recording or a reflection that men prefer to go to traditional healers.

HIV statistics are not available, as patients are not compelled to give blood for HIV/AIDS testing, and it is done strictly by choice. There is a gap concerning trained HIV/AIDS counsellors, who could render a service pre- inter- and post-counselling. The same goes for the RPR test, which is only done with a woman's written consent.

There is no clear policy on HIV testing or on the management of positive patients, which leads to under-reporting and confusion amongst personnel.

6.5. Tuberculosis (TB) Programme

Bothaville had the largest number of Pulmonary TB patients in the Tshepo District in 1997. The regional TB co-ordinator reported that at least one professional nurse from each service in Bothaville was trained according to the new National TB policy during this period. Local TB co-ordinators were nominated at each authority, i.e. the LA clinics, mobile clinics and the hospital. TB registers seem to be filled in appropriately and constant monitoring and supervision helps to address the problems and improve the quality of reporting.

Figure 5: Tuberculosis in Tshepho District 1997

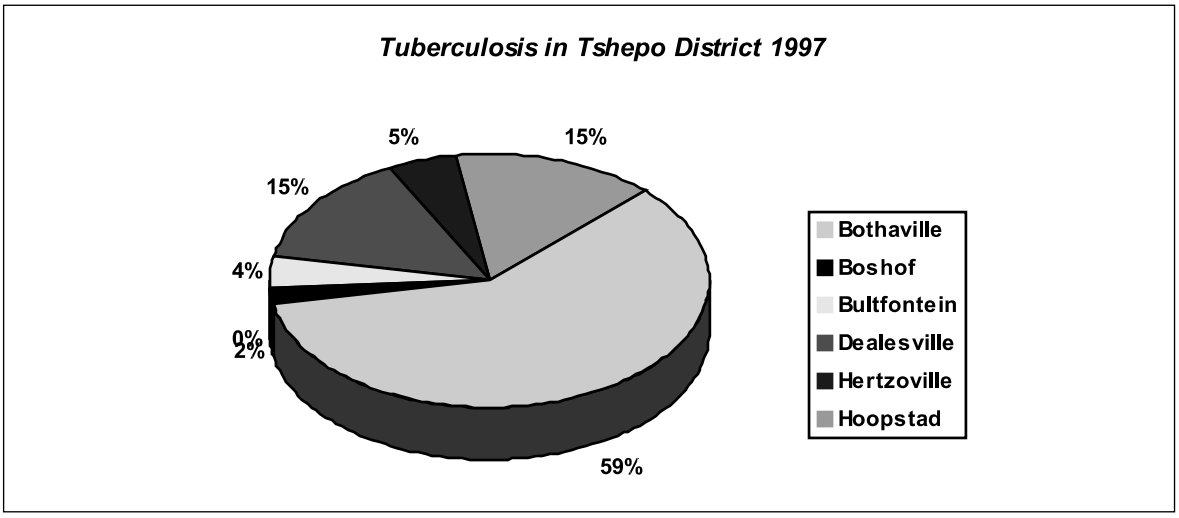


Figure 5 above, illustrates that 53% of all TB cases diagnosed in 1997 in Tshepo district were diagnosed in Bothaville. Only 7.7% of cases were diagnosed in the rural areas. The follow-up in the urban clinics is done by Direct Observation Treatment (DOT), which cannot be carried out with the rural patients.

Local Authorities reported 120 TB patients in the first trimester of 1998. Bacteriology was carried out on 92 patients (76.6%) before the initiation of treatment. The bacteriological coverage increased from 22.4% in 1996 to 40.4% in 1997. However, the private sector still considers x-raying as the most important test for the diagnosis of TB, which undermines the importance of the bacteriological test. The successful treatment rate was 98.9% (TB Indicators, Treatment Outcome Reports,12/3/98).

Specimens of TB sputum are transported by courier services daily from Monday to Friday to the laboratory (SAIMR) in Kroonstad. No problems, other than the cost of transport and laboratory fees, have been reported.

6.6. Oral Health

All oral and dental cases are referred, via the district surgeon, to the only dental surgeon in Bothaville who is a private practitioner. When necessary, he refers cases to the regional dental surgeon in Welkom. A relatively high referral rate of 50% has been recorded.

6.7. Chronic Diseases

Eighty percent of daily referrals to the district surgeon are for chronic conditions like hypertension, epilepsy and diabetes mellitus. The guidelines for treatment, which follow the EDL for Chronic Diseases, were presented and discussed at the training course for nursing staff. In the absence of public doctors, the option of nurses diagnosing and treating uncomplicated conditions was considered.

The arrival of the Cuban doctors has only resolved the problem partially, since they mainly focus on the complicated cases and they cannot go to the mobile clinics. There is a need for local guidelines that will empower nurses to diagnose and start treatment when doctors are unavailable.

6.8. Mental Health and Psychiatric Services

Free mental health services are rendered on a monthly basis in all three LA clinics by a Bloemfontein psychiatrist. The new and chronic cases are treated on alternate Thursdays, to fit in with the availability of medicines from the pharmacy. Patients are screened and treated according to the health policy. Where special treatment is necessary, the patient is referred to the district surgeon or to the district hospital.

Table 23 shows the chronic character of most psychiatric conditions diagnosed in Bothaville in 1997.

Table 23: Psychiatric services in Bothaville 1997

Type of visit	No. of patients
First visit - newly diagnosed by Psychiatrist	17
Follow-up visit	520
Total	537

Source: Department of Health, Information and Research, Bloemfontein,1997:

7. SUMMARY OF KEY HEALTH MANAGEMENT PROBLEMS

The following problem areas were identified through discussions, workshops, meetings, quick appraisals, community inputs and diverse documentation.

Although most of the proposed strategies and activities emanated from these sources, they have not been agreed upon as the plan for Bothaville for 1998. It is hoped that, with the assistance of the ISDS, this will form the basis of a plan that will be approved within the next few months.

PLAN OF ACTION FOR HEALTH SERVICES IN BOTHAVILLE SUB-DISTRICT 1998/99

Problem Area	Objectives	Activities
Fragmentation of services	Improve the quality of PHC by avoiding duplication, omissions and uncoordinated health activities	1. Recognise the nominated co-odinator of services and report to her. 2. Strengthen the Co-ordinating Health meetings outcomes by: * Making them more representative * Insist on the presence of key role players * Convert it into a problem-solving forum * Convert it into a learning opportunity by presenting a short case study from the every day experience or statistical analysis. 3. Implement the "exploration of services" 4. Invite a community representative to these meetings
	Provide comprehensive services	1. Make sure that all services are provided every day and don't favour a specific one. 2. Organise the flow of patients in a logical way, including the triage of the most serious cases. 3. Educate the community about the PHC approach and services available at clinic level 4. Review distribution of staff, on the basis of the available statistics.
Transport	Improve referrals and facilitate access to health facilities	1. Undertake a situation analysis of the transport situation in Bothaville. 2. Supervise the new pool of ambulances to the district. 3. Train of the ambulance staff in terms of danger signs and minimal clinical criteria. 4. Educate the public about the use of ambulances, i.e. only when really necessary. 5. Work within budget.
Communication	Improve communication between all relevant services. Improve the relationships amongst health personnel. Improve communication with regional office. Build up capacity and up-date the staff.	1. Redistribute computers within the district and get new computers 2. Install an e-mail line at each clinic and hospital 3. Train the staff 4. Monitor the impact of training 5. Plan meetings in advance to allow health managers to attend 6. Develop a local newsletter on health and health related issues

Problem Area	Objectives	Activities
Health information	Improve measurement of health activities and the impact thereof. Know the disease profile of Bothaville	1. Carry out a situation analysis on collection of data in the sub-district 2. Rationalise the use of multiple/duplicated information 3. Promote local analysis of the data to identify the problems and successes 4. Supervise that the tick sheet is done in the patient's presence and by trained people 5. Organise meetings to discuss morbidity and mortality 6. Show the statistics of the clinic on the walls 7. Continuous in-service training
Staff training and skills	Provide quality PHC and comprehensive services at all facilities in a standardised way	1. Participate in all possible training opportunities in the region/province. 2. Monitor who was trained in this area and who was not, before sending people on courses 3. Monitor the implementation of the knowledge provided 4. Guarantee through follow-up, in-service training the transmission of the knowledge, protocols, etc. acquired at courses
Referral pattern	Improve the referral system within the region	1. Review the provincial policy at all levels, including community 2. Explain the reasons for the elimination of the District Surgeon post 3. Promote marketing of the new referral pattern 4. Develop guidelines with criteria for referrals with participation of all people involved (nurses, doctors, drivers, etc.) 5. Monitor correct implementation and the problems of this new referral pattern
Infrastructure	Convert health facilities into friendly and comfortable places. Provide health staff with an appropriate environment in which to work	1. Upgrade K Maile clinic by increasing number of observing rooms, waiting area, store, etc. 2. In Kgotsong clinics install burglar-proofing to keep TVs, videos and computers safe
Community participation	Implement the real PHC approach.	1. Hold meetings with Community Health Committee to hear their input and problems 2. Empower the community by organising talks, campaigns, films, etc. 3. Invite members of the Committee to meetings
Private sector	Include all stakeholders in the DHS process	1. Invite them to meetings, specially the co-ordination meetings 2. Distribute national guidelines and policies 3. Invite them to develop any local protocols

Problem Area	Objectives	Activities
Priority Programmes	Improve STD's + HIV/AIDS programme	1. Distribution of the Syndromic protocol and EDL at clinics, hospital and private sector 2. Monitoring of use of S Protocol and identification of problems (lack of drugs, speculums, etc) for it correct implementation 3. Ongoing in-service training on STD's and discussion of cases 4. Investigate existing management and counselling HIV/AIDS guidelines at national and provincial levels and adapt them for local situation 5. Investigate and link with NGO's, CBO's and other support groups 6. Create awareness within health workers, and community members and risk groups 7. Education at schools, churches, work places, etc.
	Improve Tuberculosis programme	1. Increase bacteriological (sputum) diagnosis and decrease the radiological one by continuos in-service and monitoring 2. Improve time to get results and start treatment by computerisation and linkage with Lab 3. Improve the case finding , cure rates, DOT on TB by community participation 4. Improve child's TB detection and management 5. Improve TB registration
	Improve Maternal health programme	1. Development of management and referral guidelines for Maternity services in conjunction with GFHospital staff 2. Improvement of the use of H10 form by continuos monitoring 3. Implement PEP course plans for Bothaville
	Improve Child Health programme	1. Improve growth monitoring and screening of healthy children< by in-service training and community participation 2. Improve case management of most frequent diseases in children <14 by continuos training and ICMI training 3. Promote BF 4. Start ORT corners in all health institutions
Mobile clinics	Improve services for the rural population	1. Presentation and debate study done on rural area with all mobile nurses and others 2. Visits to the fixed points by managers from region/district 3. Develop specifics guidelines adapted to the situation of mobiles 4. Increase number of mobiles, staff, fixed points 5. Meetings with Farmers unions to maintain the standards and support

8 Conclusions

Bothaville is a well-resourced sub-district but still extremely fragmented in terms of the provision of health services. The unequal distribution of resources needs to be addressed. Only after a more logical allocation of both human and financial resources, will the benefits of the DHS be felt and thus will the presence of the ISDS be optimised . The commitment of the province and the region to develop a self reliant sub district is not enough, only with the establishment of the District Management Team with clear functions and responsibilities, will this happen.

The lessons learnt by other ISDS sites indicate that it is through taking a small step at a time, by bringing all stakeholders on board, addressing the problems at local level, developing management skills and planning and evaluating programmes and activities that an effective District Management Team can be established and well co-ordinated, quality health care provided to all.

Appendix 1: Expenditure review for Tshepo District -1997/98

Description	Personnel	Admin-strative	Stores& Livestock	Medicines	Equipment	Professional Services	Miscellaneous	Total	%
Clinical Services(District Surgeons and Session Doctors, excludes drugs)	3.345.000	7.132	219	-	-	212.869	806	3.566.026	31
Rehabilitation (Psychiatrists, Psychologists, Physiotherapist, Occupational Therapy, etc.)	158.165	8.961	-	-	-	-	1.646	168.772	1.4
Pharmaceutical (Paying the Pharmacist)	45.060	3.627	-	-	3.829	-	164	52.680	0.04
District Nursing(Personnel and Drugs for clinics, mobiles and CHCs)	2.952.718	266.917	101.541	2.135.155	278.227	223.243	48.981	6.006782	52.7
Nutrition (PSNP, NNSDP, PEM Scheme)	338.130	2.664	11.954	-	13.138	-	4.010	363.896	3.2
Environment (Environmental Health)	119.842	17.548	82	-	6.446	45	1.608	145.571	1.2
Oral Health	617.137	3.996	33.843	-	34.072	46.980	5.965	74.109.93	6.5
Comm. Disease(Medicines for TB)	-	-	-	113.290	-	236.164	-	349.454	
Total	**7.576.052**	**310.845**	**147.639**	**2.248.445**	**335.712**	**719.301**	**63.180**	**11.401.174**	

Source: Department of Health, Welkom Regional Office, Financial department, 1997