

Southern Africa Labour and Development Research Unit

HEALTH AND HEALTH SERVICES
IN THE CISKEI

Community Health Research Project

Saldru Working Paper No. 54

This working paper is part of a project researching health services and health needs in three areas: Cape Town, Paarl and the Ciskei. The members of the project, based in the Sociology Department at the University of Cape Town, are: Sue Myrdal and Liz Thomson.

The paper is also a contribution to the second Carnegie Inquiry into Poverty and Development which was launched in April 1982. A number of such papers will be written during the months ahead as part of the preparation for the inquiry. They will be published in the regular series of working papers issued by the Southern Africa Labour and Development Research Unit in the School of Economics at the University of Cape Town.

The authors would like to acknowledge the assistance of Anthony Zwi and Jonny Myers, who gave us comments and criticism on the first draft, as well as colleagues at Rhodes University, and various members of the Ciskei Health Services.

CONTENTS

	Page
INTRODUCTION	1
CISKEI - A SOCIO-ECONOMIC PROFILE	4
Demography	4
Economy and Labour	7
Education and Training	11
Housing	13
Infrastructure	13
HEALTH SERVICES IN THE CISKEI	17
A BASIC SERVICES	17
Structure of Services	17
Range of Services Offered: Hospitals	19
Clinics	21
Accessibility: Geographical Distribution	22
Quantity	24
Transport	26
Fees	27
Quality of Services: Expenditure	28
Staffing	31
B HEALTH/DISEASE PROFILE	34
Infant Mortality Rate	34
Malnutrition and Undernutrition	36
Tuberculosis	39
C SPECIALISED HEALTH EFFORTS	41
Malnutrition	41
Tuberculosis	45
Special Health Teams	47
CONCLUSION	52
APPENDICES	54

INTRODUCTION

The Ciskei became the fourth independent homeland on 4 December 1981. This did not result in significant changes in the organisation or delivery of health care, as the territory had had a separate Department of Health and Welfare since 1975 when the status of 'self-governing state' was conferred, and this continued to operate. The Ciskei still depends on the South African state to finance the health services, and to provide trained staff. This means that the South African state to a large degree retains control of how health care is organised. At the same time the homeland health services lend credibility to the Ciskei government, since the administration is seen to be in the position of being able to, and wishing to, promote services in the interests of local communities ¹.

The purpose of this paper is to examine health services in the Ciskei in order to assess whether they do operate effectively in the interests of local communities. This is done by addressing questions of accessibility and quality, and an attempt is made to assess whether health services efforts directed at particular needs, identified by mortality and morbidity patterns, are improving health status. It is clearly impossible to look only at health services, however, since basic requirements of food, water supply and sanitation, housing, income, education, etc are crucially related to health, and whether these requirements are met or not will also have an effect on the need for health services. The paper therefore also presents a socio-economic profile of the Ciskei and attempts to focus on the implications for health of these factors.

The paper is intended to be mainly descriptive, to provide a body of data collected from secondary sources and interviews which should inform the reader of the current health situation in the Ciskei. Certain

1. For a discussion of the role and functions of homelands health services, see A Zwi, 'Fragmenting health in the homelands' in DSG/SARS Information Publication No 6 (August 1982 Johannesburg).

parameters have been identified and an attempt has been made to assess available data in terms of these parameters. They include:

1. Accessibility, which involves a consideration of the geographical distribution and quality of services (including beds/population and doctors/population ratios), affordability (fees), and availability of transport;
2. Quality, which involves expenditure and how it is allocated, and staffing;
3. Mortality and morbidity rates.

The reader is referred to the introduction of the complementary document on Cape Town health services (SALDRU Working Paper - forthcoming) for a review and discussion of international health services research, which has informed both of these papers.

It is important not to view health and health services in the Ciskei in isolation from the structure of the total society. The Ciskei is an underdeveloped region largely dependent on the rest of the South African economy, and in the words of the Quail Commission Report, 'more of a dormitory area for South African wage-earners than it is a viable economic entity on its own'. Health in the Ciskei has not always been as poor as it is today; historical forces have undermined health along with the economic viability of the area. The following two extracts, written a hundred and thirty years apart, illustrate this process:

'The abundant health enjoyed by these people (the Xhosa) must undoubtedly be principally ascribed to the simple food on which they live: milk, the principal dish, which is supplied in abundance by numerous herds of cows; meat, mostly roasted corn, millet and watermelons, prepared in different ways, appease hunger' (Ludwig Alberti, traveller in South Africa in Tribal Life and Customs of the Xhosa, 1801).

'The tuberculosis scourge is undoubtedly on the upgrade in the Native Territories and especially in this district with its high rainfall and congested population. Unsatisfactory conditions of living and nutrition are amongst the chief

factors in spreading the disease. The chief maladies have been those of malnutrition...The former accounted, I'm afraid, for a considerable infant mortality, and pellagra-like conditions among the adults' (District Surgeon, Ciskei, 1937).

The information provided in this research paper can only be useful to the extent that it is seen in the context of changing social and economic relations in the Ciskei and in South Africa. Identifying problems in the health services is one thing; making interventions to solve these problems is another, and requires an appreciation of all the forces at work.

CISKEI - A SOCIO-ECONOMIC PROFILE

Health and socio-economic status are closely bound together, and it is impossible to examine the health of a population without reference to the socio-economic conditions that shape it.

In order to identify areas of intervention, and the possibilities for improving health in the Ciskei, it is necessary to recognise the social, political and economic forces operating in the region. This implies looking not only at the present socio-economic levels of different groups, but also at the historical reasons for the development of the present situation, and the range of forces likely to shape the future.

This section, however, confines itself mainly to the present, which is a reality for 700 000 people. By outlining the existing situation and assessing it, it is intended that some inferences can be drawn about basic needs in general, and future requirements for better health in particular.

DEMOGRAPHY

The Ciskei, when fully consolidated, will consist of 8 300 square kilometres,¹ with a population of about 700 000² people living within its boundaries. (The present official figure is 635 631, according to RSA Department of Statistics, 1980.) This is a population density of 85/km², compared to 13,5/km² in white South Africa.³

In addition to this 'de facto' population, the South African government designates a further 443 094 people living in the rest of South Africa (as migrant workers or permanent residents) as Ciskeian Xhosa, the total of about 1 million making up the 'de jure' population. (Figures from the preliminary results of the population census of 6 May 1980, RSA Department of Statistics.) The Quail Commission,* however, provides an estimated 'de jure' population for

* The Quail Commission was appointed by the Ciskei Cabinet to enquire into and report on the practical feasibility of independence for the Ciskei. Amongst much other information, they found that fewer than one-third of Ciskei Xhosa were in favour of independence, and that in terms of size and economic viability the Ciskei was one of the world's most poorly endowed states (Quail Report 1980).

1980 of 2 100 000, a million more than the official figure. Their figure is based on Chamber of Mines figures of Ciskeians working on South African goldmines, on Administration Board figures of Ciskeians resident in urban areas, and on estimates of 'illegal' and 'legal' rural residents in the common area (RSA).

This disparity is based partly on uncertainty about what exactly constitutes a 'Ciskeian', an uncertainty that raises the question of a further confusion about who is entitled to health and welfare benefits, such as disability grants, workmen's compensation, pensions, UIF, etc. Many of these are only available to people holding Ciskeian citizenship documents.

The apparent official underestimate of 'de jure' population also has implications for the planning of health services. Migrant workers, by definition, are not permanent residents in the RSA, and they therefore require health services in the homelands to which they eventually return. The quantity of services needed cannot be accurately determined if the size of the population is not known.

The following table, adapted from the Department of Statistics table 'De facto population 1980', indicates the urban/rural and sex breakdown of the population of Ciskei physically residing in the region:

TABLE 1

Urban/Rural breakdown of the 'de facto' population of Ciskei			
	Urban	Rural	Total
Male	111 768	181 930	293 698
Female	118 885	223 048	341 933
Total	230 653	404 978	635 631

36% of the population are urban, while 64% live in the rural areas. The majority of the population are also female (54%), and this imbalance is compounded in the 15-60 age group by the migrant labour factor, as shown in the following table of age/sex structure. According to the Quail Report, an estimated 40% of the total ('de jure') male population in this age group are migrant labourers in white South Africa.

TABLE 2

Age and sex of the 'de facto' population, 1980 (RSA Department of Statistics) (Excluding whites, coloureds and asians - Total 5 278)					
Age Group	Male	%	Female	%	Total
0-14	163 003	52%	149 112	48%	312 115
15-60	108 426	40%	163 938	60%	272 364
60+	19 648	43%	26 226	57%	45 874
Total	291 007	46%	339 276	54%	630 353

The Quail Report notes an official birth rate in the Ciskei of 49/1000, but points out that this is not reliable, since many births are not registered, or are registered years later. This has serious implications for the planning of child health services.

The Ciskei has been a prime area for population 'relocation': 160 000 (25%) of the population are recent immigrants, or displaced people.⁴ Over the last ten years, the population has almost doubled - from about 350 000 to about 630 000 (Department of Statistics). This represents an annual growth rate (6%) more than twice that of the Africans in RSA on average (2,7%), and is explained by the influx of people from other areas⁵. Most have been resettled from 'black spots' in surrounding areas, from increasingly mechanised white farms and from white urban areas where they were 'illegally' employed. This process continues, and with increasing pressure on the land, existing problems of lack of food and work and consequent ill-health will inevitably grow worse.

The land supporting the population is largely infertile, being too mountainous or dry for productive use. Much of the north-western area, Hewu, is semi-desert.⁵

ECONOMY AND LABOUR

The viability of the economy, and the working conditions and income of the population are key factors in relation to health. One measure of the level of material welfare is per capita income. The 1976 BENS0 estimate (the latest official figures available) of per capita income in the Ciskei is R262,00 per annum (including the income of migrant workers). This is extremely low; even compared with the nine other homelands, Ciskei ranks second from the bottom, as the following table shows:

TABLE 3 (a)

Comparison of homeland per capita incomes 1976 6.	
Bophuthatswana	R381
KwaZulu	R357
Gazankulu	R338
Kangwane	R295
Transkei	R281
Lebowa	R279
Venda	R270
Ciskei	R262
QwaQwa	R209

Preliminary BENS0 estimates of homeland per capita incomes for 1980 place the Ciskei slightly higher up with a per capita income of R454 per annum:

TABLE 3 (b)

Comparisons of homeland per capita incomes 1980	
Bophuthatswana	R811
QwaQwa	R689
KwaZulu	R539
Kangwane	R624
Transkei	R469
Ciskei	R454
Venda	R418
Lebowa	R373
Gazankulu	R324

Unemployment

The unemployment rate is extremely high, aggravated as it is by the rapid and marked increase in population. It has been estimated at 30-35% of the economically active population (those aged between 15 and 60 years), and is nearer to 45% in the urban areas ⁷. A disproportionately large section of the population is economically inactive, since, on the one hand, migrant labour takes both people and their earnings away, and on the other hand, the homeland is the place to which the old, the sick and the disabled are forced to resort when they can no longer work. In 1970 there were 19% more persons of a 'dependent' age (0-14 and 65+) than in South Africa at large. ⁷. This pattern, typical of an underdeveloped region, means that the unemployment situation is particularly serious, as there are more dependants to support.

The position with unemployment insurance has also deteriorated, as all Ciskeian migrant workers (including commuters, e.g. between Mdantsane and East London) were excluded from the South African Unemployment Insurance Fund scheme on independence. For an interim period of three years from the date of independence (4 December 1981), these workers are still supposed to be provided with coverage from the South Africa Unemployment Insurance Fund; after that, they should be covered by a fund set up by the Ciskei government. The Ciskei government has recently started such a fund, but there is still confusion amongst workers and South African employers about where benefits can be claimed and about who should collect contributions ⁸. Other aspects of state welfare are also inadequate: pensions, for example, are about R18,50 per month and are often delayed, or in the case of resettled communities, not transferred at all. ⁹

The low per capita income and high unemployment rate result in inevitable poverty for most people, and state welfare does little to alleviate this situation.

The following table shows rough employment figures for the different economic sectors within the Ciskei. ¹⁰

TABLE 4

Employment in Ciskei 1981	
Sector	Number Employed
Industry	6 000
Agriculture schemes	3 000
Commerce	1 000
State sector	14 000

This is a total of 24 000 jobs, in an area with an economically active population of about 272 000 (men and women), and a total population of about 700 000.

Industry

Little industrial development has occurred in the Ciskei and only 0,9% of residents are employed in the manufacturing industry. Industrial Conciliation Agreements and Wage Determinations are not valid in the Ciskei (part of the package of concessions offered to attract investors) and wages in industry are very low. Women are employed at lower rates than men and make up three quarters of the labour force. In 1981, the average weekly wage for women was about R9,00¹¹. Lack of industrial relations legislation and the fact that trade unions are effectively banned in the Ciskei*, mean that labour is cheap and unprotected.

Agriculture

Most agriculture is small-scale subsistence agriculture carried out on state-owned land which is allocated by the chiefs. The subsistence farming population numbers about 360 000¹². BENSO calculates income from agriculture at R8 million per annum - about R22 per farmer per year.¹³ Over 85% of this is in the non-market sector.

* Members of SAAWU (South African Allied Workers Union), for example, are not permitted to hold meetings in Mdlantsane, and have been subjected to extreme harassment by both the Ciskei and the South African police.

The lack of cultivatable land (only about 15% is viable farming land), and the absence of a large proportion of the male population both contribute to the limited possibilities for agricultural development. Government-run irrigation schemes benefit only a few selected farmers and are irrigated at great cost. Wages for workers on these schemes are very low - on the Keiskammahoek scheme, for example, they are R1,50 a day for women and R3,00 a day for men. ¹⁴

State Sector

The state sector is the largest employer in the Ciskei. Of the roughly 14 000 employed, about 4 000 (29%) are teachers and 7 000 (50%) civil servants. About 2 000 semi - or unskilled labourers are employed, mainly in construction of houses, roads and dams. ¹⁴.

The fact that the state owns the land in the Ciskei, and is also the largest employer, puts it in a powerful position to control labour.

Working Class

The working class of Ciskei * can be categorised as follows ¹⁵

Commuters	40 000
'Legal' migrants	60 000
Mine migrants	17 000
Internal working class	10 000
	<hr/>
	127 000
	<hr/>

Internal Working Class

Industry	6 000
Construction, transport	2 500
state, services, commerce	1 500
Agriculture (wage earners)	<hr/>
	10 000
	<hr/>
	(about 4% of economically-active population)

Figures are not available for either the informal sector, which is assumed to be quite large, or for 'illegal' migrants.

* That is, working class Ciskeian Xhosa who live and work in Ciskei (internal working class), or who live in Ciskei and work in RSA (commuters), or who live and work in the RSA except for the three weeks a year when they return to families in the Ciskei (migrants).

Ciskeians attempting to compete in South Africa's labour markets are disadvantaged in the same way as all other homeland blacks : the labour bureaux control the movement of labour; 'de facto' job reservation keeps wages low and unemployment high; the migratory labour system carries with it the social costs of marital instability, alcoholism and crime; and influx control reduces bargaining power and security of employment, driving many to the hazards of working and living as an 'illegal'. Apart from the obvious relationship of poverty to ill-health, these factors also have a bearing on stress-related diseases.

Viability of the Economy

58% of per capita income comes from commuter employment in East London, King William's Town and other small towns in the white 'corridor'. Apart from selling its labour, however, the Ciskei has few links with the productive sector of what might be called the adjacent economy. In fact, in the words of the Quail Commission Report, 'at its current state of development the Ciskei is more of a dormitory area for South African wage-earners and surplus population than it is a viable economic entity on its own'.¹⁶

This is borne out, as well, by the fact that food production and manufacture constitute less than a quarter of the Gross Domestic Product of the Ciskei (15,1% and 7,1% respectively in 1975).¹⁷ This is in contrast with the normal structure of a low income economy in which these directly productive sectors usually amount to 50-60% of GDP. Over half the consumption requirements of basic carbohydrates (maize and wheat), as well as milk and vegetables, are imported.¹⁸ 68% of Ciskei government revenue comes as 'aid' from South Africa, and 11% from loans. Only 17% is from 'own sources'.¹⁹ This is a pattern of dependence. The health of the population cannot but be compromised by the lack of viability of the economy, and the concomitant patterns of poverty and unemployment.

EDUCATION AND TRAINING

In 1981, 180 000 primary school pupils were taught by 4 058 teachers in 498 schools. This is a high ratio of 44 pupils per teacher (cf white

South African ratio of 18,6:1). The ratio for high school pupils is 35 pupils per teacher, although only 42 200 pupils were at school in the higher standards (6-10).²⁰ Secondary education is not compulsory 'but pupils are encouraged to remain at school as long as possible'.²¹ There is, however, an 87% drop-out rate at the secondary school level, which is partly a consequence of the shortage of qualified teachers,²² but which is also attributable to the need for pupils to find work and contribute to the family income.

In an education survey carried out in the Amatola Basin,²³ it was found that one of the main problems was the long distances pupils have to walk daily to attend school. Factors such as illness and bad weather, in conjunction with these distances, result in a fairly high drop-out or truancy rate, especially among older boys, who also have to assist with dipping cattle and ploughing at certain periods. Amatola principals also all commented on the inadequate accommodation available at their schools, and the staff shortages. In 1980, the average number of pupils per classroom was 50, with pupils from more than one standard sharing rooms in almost all cases. In the primary schools, half the rooms used as classrooms are private or church property. There is also only one high school in the Basin, which means that pupils often leave the area to live closer to the schools they attend in other areas.

The private sector has contributed to the financing of technical and agricultural training in the Ciskei (for example, the Phandulwazi Agricultural High School near Alice, funded by Anglo American Corporation, and Buchule Technical School, funded by Barlow Rand). There are three primary teacher training colleges and a university, Fort Hare.

Other social and economic factors which tend to disrupt education, to a greater or lesser extent, are migrant labour and resettlement. Many boys leave the Ciskei in their mid-teens to seek employment in South African cities, with the result that women generally have higher qualifications than their male counterparts.²³ Resettlement sometimes involves moving children with their families in the middle of

school terms, often to areas where there is no properly-organised school within easy travelling (i.e. walking) distance. Undernutrition also militates against achievement at school - 68% of rural children in the 7-8 year age group are stunted in growth.²⁴ The headmaster of the Kammaskraal primary school commented that the children 'try to work, but because they are under-nourished, they soon lose interest, due to hunger'.²⁵

HOUSING

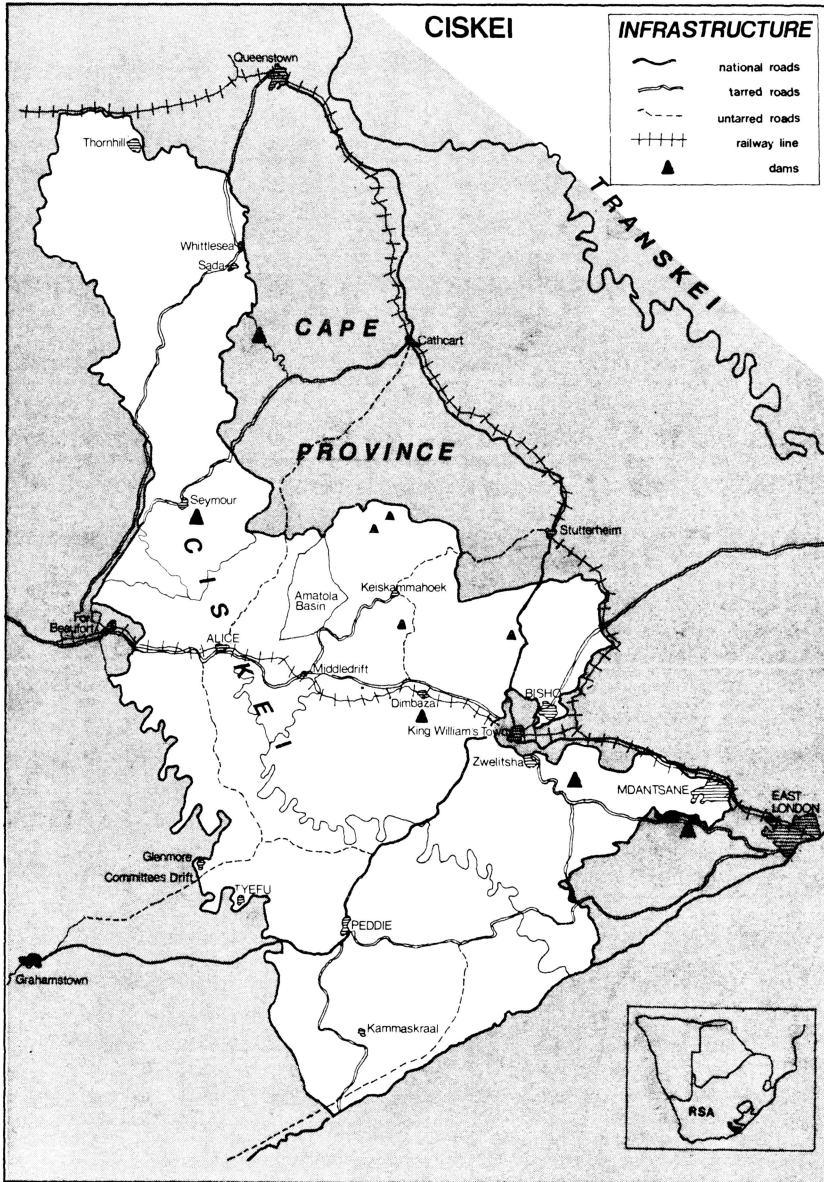
Housing in towns is mainly provided by official agencies, in particular the South African Development Trust (SADT), which provides aid for housing, schools and roads.²⁶ The Ciskei government is, however, trying to encourage 'citizens and employers' to provide housing themselves.

A critical housing shortage exists in or near the towns. The Quail Report estimates that the present population of Mdantsane is about 250 000, twice the official estimate, giving a clear indication of overcrowding. The same pattern of overcrowded and insufficient housing is repeated in the other six recognised towns, with estimates of an average of 12,3 occupants to a house in Zwelitsha.²⁷ The average size of houses is about 45 square metres (floor area).

In the rural areas, traditional housing from natural materials such as grass, trees, clay, water and kraal manure is still being used. It often offers better protection against rain, wind and sun than more expensive temporary housing provided for those being resettled. The materials used in such cases are galvanised corrugated sheet steel, or split poles on a wooden frame. The uninsulated steel affords no protection from heat and cold, and the split pole houses tend to leak or suffer wind damage. Such housing schemes, which the Quail Report calls 'ill-matched to their surroundings', inevitably have negative consequences on health.

INFRASTRUCTURE (See Map 1)

Trunk and main roads (tarred) are linked to a network of gravel secondary roads, and a number of tracks and by-roads which have been created by



MAP 1

constant use. The gravel roads in parts are difficult to travel because of stones and erosion, and in wet weather they deteriorate considerably.

Rail facilities are lacking partly because the mountainous terrain makes construction difficult. A Fort Beaufort-King William's Town line and an East London-Queenstown-Tarkastad line provide access to parts of the Ciskei.

Bus services operate once or twice weekly in most of the rural areas, and other means of transport are private vehicles, horses and walking. Transport is difficult to come by, and this is one of the main difficulties in access to the health services.²⁸

Water is supplied to rural villages by boreholes, while reservoirs are used for larger urban complexes. Many rural communities suffer water shortages, or a polluted water supply, along with a lack of proper sanitation. In Kammaskraal, for example, sanitation consists of holes in the ground under a zinc shelter. When it rains, excrement is washed from the toilets down to the dam.²⁹

Lack of employment opportunities, in urban, rural and resettlement areas, the inability of the land to sustain its population, migration of breadwinners and overcrowding, all lead to poverty and undernutrition, which in their turn predispose to diseases of all kinds. It is in the context of the socio-economic conditions and environment of people living in the Ciskei, that their health status and needs, both for health services and for more basic requirements, must be assessed.

REFERENCES

Demography

1. Quail Commission Report, p 19.
2. Hirsch, A and Green, P. "The Ciskei - The Political Economy of Control" in SA Labour Bulletin, Vol 7, February 1982, p 68.
3. Black Sash. "South Africa - A Land Divided" 1982, p 23.
4. Ibid.
5. Hirsch, A and Green, P. Op cit p 68.

Economy and Labour

6. Quail Report, pp 59-60.
7. Quail Report, p 68.
8. Carole Cooper, 'Unemployment Insurance' in DSG/SARS Homeland Tragedy, pp 37-40.
9. WIP (Work in Progress), No 17, 'Old Age Pensions and the Bantustans', G Maré, pp 12-25, April 1981.
10. Information from Hirsch and Green, op cit.
11. Hirsch and Green, op cit, p 71.
12. Quail Report, p 72.
13. BENSO: Statistical Survey of Black Development 1979.
14. Hirsch and Green, op cit, pp 72, 73.
15. Table derived from Hirsch and Green, op cit.
16. Quail Report, p 70.
17. BENSO: Statistical Survey of Black Development 1979.
18. Quail Report, p 63.
19. BENSO: Republic of Ciskei - Statistical Section.

Education

20. BENSO: Republic of Ciskei, p 197, Department of Education and Training Annual Report.
21. Ciskei at Independence, Ciskei Government, p 91.
22. Quail Report, p 30.
23. Bekker, S B, De Wet, C and Manona, C W, "A Socio-Economic Survey of the Amotala Basis", Development Studies Working Paper no 2, Institute for Social and Economic Research, Rhodes University, Grahamstown, pp 18, 19.
24. T Thomas, quoted in R Fincham, "The Nutritional Status of Pre-School Children in the Amotala Basin", Institute for Social and Economic Research Paper No 9, p 4.
25. Evening Post, 27-09-1980.

Housing

26. Ciskei at Independence, Ciskei Government, p 57.
27. Quail Report, p 33.

Infrastructure

28. Cecilia Makiwane Annual Report 1981.
29. Survival in a Ciskei Resettlement Camp, J Cock, Critical Health No 6, November 1981, p 3.

HEALTH SERVICES IN THE CISKEI

A. BASIC SERVICES

Health services in all the reserve areas in South Africa were originally provided by mission hospitals. In the Ciskei these were Lovedale, St Matthews Mission and Mount Coke. A combination of factors led to a change in this situation.

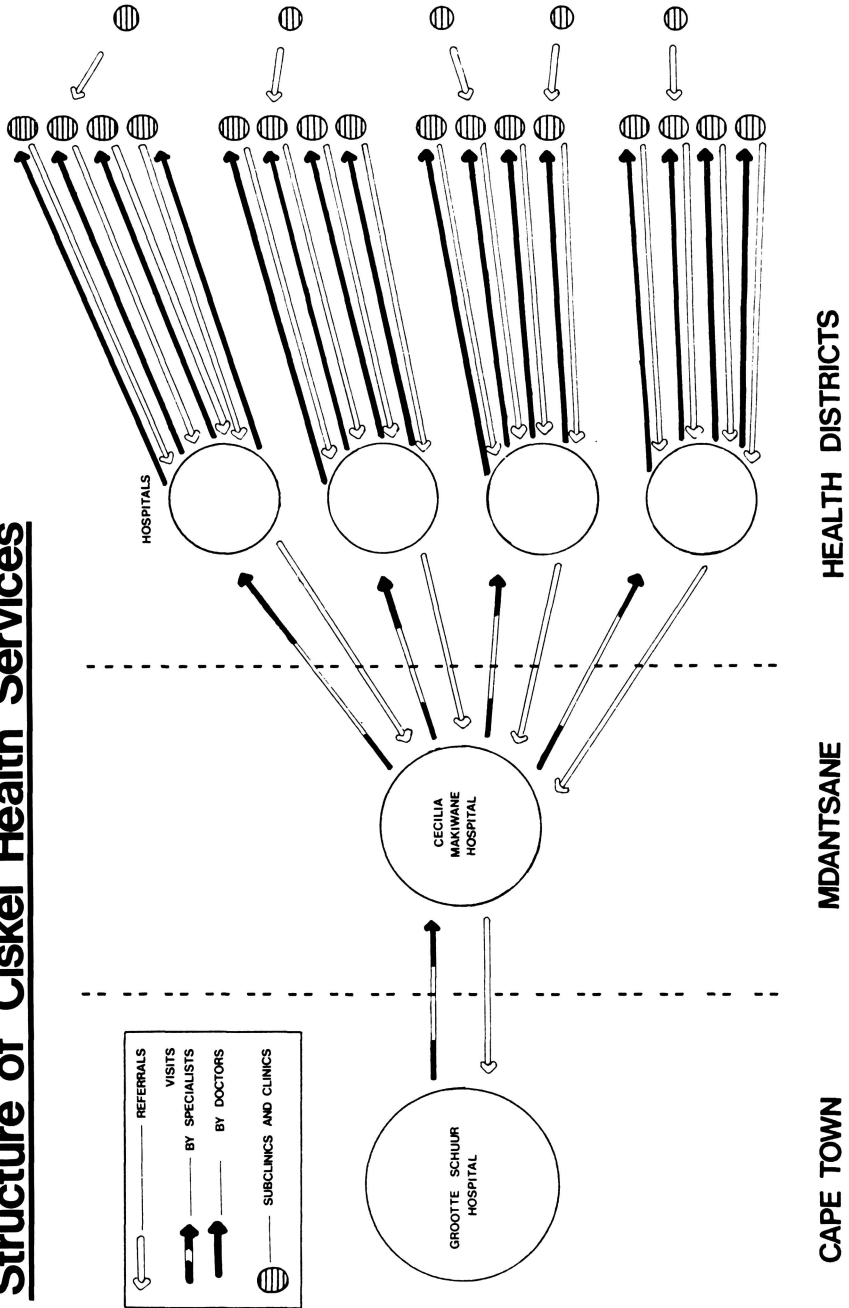
Many of the mission hospitals were experiencing financial difficulties, and the government was also concerned about the anti-government attitudes of some of the mission staff (often expatriates). Eventually, by 1970, government plans for separate development and the 'homeland' policy advanced to the stage where all responsibility for health services for blacks in rural areas was handed over to the then Department of Bantu Administration. The Department of Health was appointed as its agent for the management of all hospitals.¹

By 1975 the Ciskei had the status of a 'self-governing state' (under the Bantu Homelands Constitution Act No 21 of 1971) and in November 1975 a separate Department of Health and Welfare for Ciskei was formed. Cecilia Makiwane Hospital (then known as Fikile Siyo) was built at Mdantsane as a specialist referral hospital.² The old mission hospitals, which had been taken over by the state, were handed over to the Ciskei authorities. The position since independence in December 1981 remains the same: all health services are operated by the Ciskei government, and the health budget is derived from funds provided by the South African government. This allows a significant measure of control over expenditure, and even policy, by the South African government.

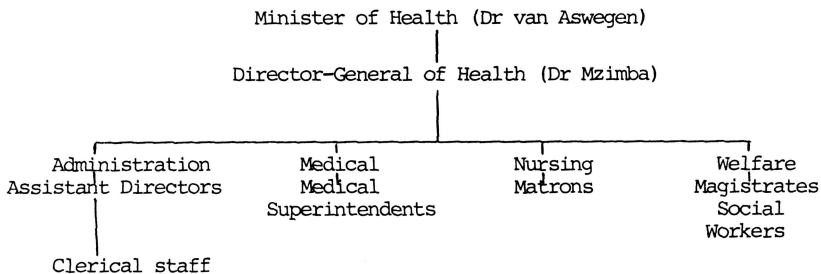
STRUCTURE OF SERVICES

The Ciskei Department of Health is headed by the Minister of Health, as political head, and by the Director General (Secretary) of Health, as the civil servant in charge. The Director General is responsible to the Minister, and has Assistant Directors who perform administrative duties.

Structure of Ciskei Health Services



The Department of Health itself is divided into three sections: Medical, Nursing and Welfare. The Ciskei is divided into seven regional administrative health districts, which correspond to the magisterial districts in the Ciskei. Five of these have hospitals, which control the clinics in the area, and the Medical Superintendent of each hospital is the chief medical officer of each district. The Matron of each hospital is the chief nursing officer of the district. Local magistrates and hospital social workers take joint responsibility for welfare and social security benefits (pensions, disability grants, etc).



The diagram facing illustrates the structure of the Ciskei health services, and their relation to Groote Schuur Hospital in Cape Town, the referral hospital for Cecilia Makiwane:

RANGE OF SERVICES OFFERED

Hospitals

The five hospitals in the Ciskei are: Cecilia Makiwane, Mount Coke, Nompumelelo, St Matthews and Victoria. The following official table indicates the range of services provided by these five hospitals :³

TABLE 1

1980

Hospital Services Provided	Cecilia Makiwane	Mount Coke	Nompumelelo	St Matthews	Victoria	Total
General medicine	*	*	*	*	*	5
General surgical	*	*	*	*	*	5
Maternity	*	*	*	*	*	5
Aged and chronic sick	-	-	*	-	-	1
Tuberculosis	*	*	*	*	-	4
Infectious cases	*	*	*	*	*	5
X-Ray	*	*	*	*	*	5
Physiotherapy	*	*	*	-	-	3
Occupational therapy	-	*	*	*	-	3
Specialist services available	*	*	-	*	-	3
Psychiatry	-	-	*	*	-	2

Paediatric, obstetric and gynaecological services are not mentioned as a special category, and it is not clear how generally these important services are provided.

Specialists from Cecilia Makiwane visit the other hospitals on a regular basis (weekly); and doctors from the hospitals visit the clinics once or twice a week.

The distinct shortage of aged and chronic sick services is especially acute in view of the large proportion of aged people (see Socio-economic profile). There is only one old age home in Ciskei (at Ekuphumleni, near Peddie) which houses 447 residents, and a home for the chronically-ill housing 327. Psychiatric services are also lacking at three hospitals.

Cecilia Makiwane, a teaching hospital, is a satellite to Groote Schuur, as the diagram on structure indicates. It is affiliated to the Medical School, and Registrars can do one year at Cecilia. The satellite departments are: Departments of Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics and Ophthalmology. Specialists from

UCT Medical School visit the hospital monthly for teaching purposes and consultation of problem medical cases.

Clinics

Clinics provide both curative and preventive services. As the diagram indicates, they are the primary level of service. The main services offered are general medical, child health services, tuberculosis control, family planning and health education. Immunisation is one of the main functions of clinics.

In each district there is a District Matron in charge of Community Health sisters; one in charge of urban sisters and one in charge of rural sisters. As yet, the clinic sisters are not trained in Primary Health Care - there is thus a limit to the services they can provide. Community Health sisters (sisters holding a post-basic Diploma in Community Health Nursing Science) are attached to clinics where possible; they are responsible for social work, such as 'family pathology', disability, old people, follow-up work, etc. There are also posts for social workers in all clinics, but only a few are filled. Urban clinics are supposed to have nine sisters, but actually have on average 6-8, whereas rural clinics are supposed to have 5 sisters and 3 staff nurses, but usually only have 2 sisters. ⁴

The shortage of staff means that clinics are generally not as efficient as they could be. Other factors, such as the attitude of clinic staff in some cases, also contribute to a negative image of clinics in the eyes of local inhabitants, in certain cases. A study by Selvan et al ⁵ found that in the villages around Alice 52,45% of their sample went directly to a hospital on first becoming ill. Only 18,8% went directly to the nearest clinic, while the rest either consulted traditional practitioners, private doctors, chemists, or did not seek any medical help at all. Many people seem to feel strongly that doctors provide a better service; as one rural woman said: 'I don't go to the clinic. I don't believe in sisters, I believe in doctors'. ⁶

Hospitals and clinics are also the nuclei of specialised health teams, which will be dealt with in more detail in a later section. These are, for example, TB teams, a school sister in each district, family planning sisters, psychiatric teams, dental therapists, social workers, and village health workers.

The structure of the Ciskei health services is obviously designed to make the best of the problem of lack of doctors, by integrating clinics into control by the district hospital, with a system of referrals and visits by doctors. However, the hospital service employs only 63 full-time and 19 part-time doctors, in the whole of the Ciskei, (population at least 635 000) and they are stretched beyond the point of effective care by the responsibilities of clinic visiting over and above outpatients and other hospital work. Also, the fact that many patients choose to bypass the clinics as the primary level of care, indicates blocks in effective provision of care at this level, and often leads to bottlenecks further up, at the hospital level.

ACCESSIBILITY OF SERVICES

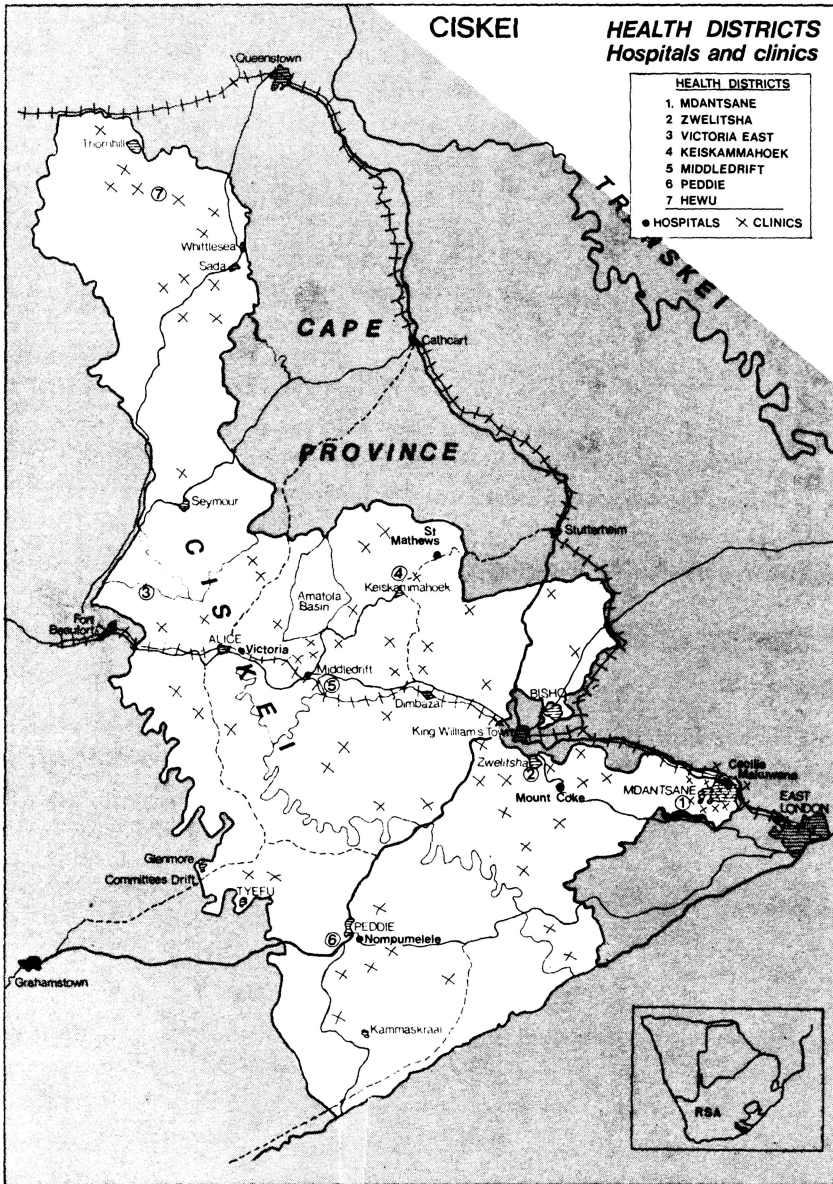
Four factors affecting accessibility of the health services are considered: geographical distribution; quantity; transport; and fees.

Geographical Distribution (See Map 2 facing)

The map indicates the geographical distribution of hospitals and clinics in the seven health districts.

Geographical accessibility of services is a problem in the Ciskei. Cecilia Makiwane, the large regional hospital, is located in Mdantsane, on the periphery rather than in the centre of the territory, and therefore out of reach of the majority. There is no doctor within reach of the Thornhill-Sada-Ntabethemba area, where 7-8% of the population live. ⁷

These anomalies of location can be explained by the fact that a large body of workers working in South Africa (commuters) is concentrated in Mdantsane, and it is important to industry that the health of this



MAP 2

workforce be maintained. On the other hand, people living in the Thornhill area are, in a sense, a 'surplus' population. Extensive resettlements have also disturbed population patterns to such an extent that the present distribution of services is inadequate. (See Demography section, Socio-economic Profile.)

Quantity

The following table provides some idea of the adequacy of hospital services in quantitative terms:

TABLE 2

Hospital Beds in the Ciskei in 1980⁸

District	Hospital	Population	Beds	Beds/1 000 Population
Mdantsane	Cecilia Makiwane*	178 774	638	3,5
Zwelitsha	Mount Coke	167 420	300	1,7
Victoria East	Victoria	68 836	182	2,6
Keiskammahoek	St Matthews	38 853	215	5,5
Peddie	Nompumelelo	59 198	156	2,6
Hewu		74 510		
Middledrift		48 040		

* Cecilia Makiwane has since expanded and now has about 800 beds. The beds/1 000 population ratio for Cecilia is, however, misleading, since patients are referred from all over the territory, not just from Mdantsane.

The two northern hospitals, Victoria and St Matthews, are the closest for people living in Hewu and Middledrift, so these populations should be included in calculating bed ratios. On this basis, the beds/1 000 population ratio for Victoria is 1,4 and for St Matthews, 2,1.

The total number of hospital beds is 1 491, which gives an average of 2,3 beds per thousand of population. It should be noted, however, that the official denominator (population) figures are lower than the actual population, and therefore the ratio of beds to population

is also lower in reality. Relating the number of beds to the official estimate of de jure population, for example, gives a ratio of 1,4 beds per thousand population.

The beds/1 000 population for the Ciskei can be compared with:

(a) Existing ratios for whites in the four provinces of South Africa.⁹

TABLE 3

Hospital Beds for whites in the RSA in 1979

Province	Number of beds	Beds/1 000 Population
Transvaal	14 109	6,27
O F S	2 490	7,07
Natal	3 947	7,50
Cape	6 578	5,03

(b) The South African Department of Health planning norm, which states that the provision of general hospital beds must be set at four beds per 1 000 of the population.⁹

The ratios in Ciskei are particularly inadequate considering that there is no effective system of community health practice through centres providing comprehensive care. The fact that TB patients, for example, are hospitalised, instead of receiving ambulatory treatment, is one indication of this shortcoming. Although clinics do provide curative as well as preventive services, the definition of a clinic varies; many of them do not provide comprehensive care, and they vary considerably in size, some having only one sister. There are also not enough of them, as the table below indicates:

TABLE 4
Clinics in the Ciskei in 1980 ¹⁰

District	Clinics	Persons per Clinic
Mdantsane	18	9 931
Zwelitsha	18	9 301
Peddie	8	7 399
Hewu	12	6 209
Keishammahoek	13	2 988
Victoria East	6	11 472
Middledrift	6	8 006
	81 [*]	

* There are a few extra mobile or sub-clinics that would bring the total figure up to about 90.

The persons per clinic ratio is once again probably higher than these figures indicate, since numerator population figures are under-estimates. Compare the South African Department of Health norm of one examination room per community health centre (clinic) per 2-5 000 people. ⁹

According to the Ciskei government ¹¹ there are 90 doctors working in the Ciskei (including eight private practitioners). Related to the official population figure of 635 000, this is a ratio of approximately one doctor for every 7 500 people. Given that 19 of these doctors are part-time, and that population figures are likely to be far higher, the ratio is much lower in reality (cf the fact that 53% of the white population of South Africa live in areas where the ratio is 1:1 900 or less).

Transport

Transport is the other factor affecting accessibility. Few people own motor vehicles, so transport to health services is on foot, by bus or taxi, or by train (which only applies to Victoria (Lovedale) in Alice or Cecilia Makiwane in Mdantsane). A study of Victoria ¹²

showed that 40% of all hospital patients came from within a radius of 5 km from the hospital, and 56% came from within a 10 km radius. 85% of all patients were no further than 20 km away, which would seem to be the limit that people can either afford transport or manage to walk.

There is also a general shortage of ambulances, as well as difficulty in maintaining hospital vehicles in running order, because of the extremely bad road conditions, especially during wet weather or drought. A study of the Amatola Basin area reported that the ambulance from St Matthews Hospital is so unreliable that it is not unusual to wait nine hours for it to arrive, and in bad weather it does not attempt the journey. The sisters themselves have no vehicle at their disposal and in urgent cases they walk to villages. 13

The 1981 Cecilia Makiwane report comments: 'The transport situation remains critical. There is often considerable delay in response to calls for ambulances, and the service is hampered by shortage of cars for the transport of clinic medical officers, district nurses, school nurses, social workers, and specialists visiting outlying areas'. 14

Fees

Fees stipulated for treatment in hospitals and clinics are: 15

In-patients	R2,00 on admission
Out-patients	R0,50 a visit
Maternity	R4,00 including pre- and post-natal visits
Ambulance trips	R2,00 per journey

Selvan et al ¹⁶ comment on the outpatients' fees of 50 cents: 'Theoretically a patient who cannot afford this is able to be treated free of charge. In practice patients are turned away if they do not have the money.' They speculate that there are obviously patients who do not present themselves because they do not have the money. This is indicated by the increase in attendance at a particular hospital, Lovedale, when free medical treatment was introduced in 1950. Attendance jumped from 5 871 in 1949 to 19 654 in 1950 (33% increase),

and up to 27 132 two years later, an increase of over 20 000 in three years.

Although 50 cents is relatively cheap, it is obviously a considerable sum for people living in a territory where the per capita income is about R454,00 per annum. Moreover, 50 cents must be paid for each visit, even if patients are undergoing a continuous course of treatment. The costs of transport must also be added to expenses.

QUALITY OF SERVICES

While quality is difficult to assess without in-depth study designed to bring out both objective and subjective aspects, it is possible to provide some idea of quality of services by examining two parameters which have a bearing on quality. These are expenditure and staffing.

Expenditure

The following table is a summary of the health budget, showing the vote and expenditure: ¹⁷

TABLE 5

Health and Welfare 1979-80

Vote		24 141 301,00
Salaries/Wages	5 507 278,01	
Subsistence/Transport	590 124,03	
Postal/Telephones	69 374,72	
Printing/Stationery	10 623,14	
General Services	17 419 666,62	
Total	23 597 066,52	23 579 066,52
Surplus to be surrendered:		544 234,48

Expenditure was accounted for by two major categories: hospital and clinic services, and pensions. Table 6 ¹⁸ indicates expenditure in 1980 on the seven health districts, subsumed under the five hospitals:

TABLE 6Hospital Expenditure in the Ciskei in 1980

	R
Cecilia Makiwane	4 916 050
Mount Coke	1 700 847
Nompumelelo	931 277
St Matthews	1 040 207
Victoria	1 116 366
Total	9 704 747

Table 7 shows expenditure on pensions as at 31/3/80: ¹⁷

TABLE 7Expenditure on Pensions 1979/80

<u>Social Pensions</u>	<u>Total Number</u>	<u>Value</u>	<u>Average Payment: R298 per year)</u>
Old age (32 319)	37 092	R11 040 918	
Blind, disability and other (4 773)			

An additional amount of R20 126,30, the salary for the Minister of Health, was recorded but not included in the salaries expenditure.

As a percentage of total expenditure on the eight government votes, R87 980 870,41, ¹⁷ expenditure on health and welfare constitutes 27%.

As a proportion of total expenditure by all public institutions (Ciskei Government, development trusts, RSA Department of Co-operation and Development, etc.) - R138 million ¹⁸ - the amount spent on health and welfare is 17%. If the expenditure on social pensions is left out the amount spent on health is 14% of government expenditure, and 9% of public institutions' (including government) expenditure. This amount is relatively high, compared to other developing countries.

It must be noted, however, that health and welfare accounts for more expenditure than any other sector (agriculture, education, etc). Money directed to these sectors would possibly do more to improve health than such a large amount allocated to health, most of which is spent

on 'patching up' preventable diseases. Health services, however, are a tangible symbol of the state provision of benefits to the population, and as such are a worthwhile investment for the state.

Expenditure per capita is R14, compared with about R35 per head spent by the South African government on health services in South Africa excluding the homelands.¹⁹

A more detailed breakdown of health expenditure is reflected in the Appropriation Account. A few items where expenditure fell short of the vote are selected, and presented below.¹⁷ These items raise questions about allocation and use of funds, in the light of repeated statements by officials that there is a lack of finance, difficulties in obtaining pensions, etc.

Appropriation Account - Selected items

<u>Service</u>	<u>Vote</u>	<u>Expenditure</u>	<u>Less than voted</u>	<u>Explanation</u>
F. Supplies and Services	4 950 960	3 676 674	1 274 285	More funds were provided than initially requested
K. Pauper Relief	197 500	186 947	10 552	Stricter control being exercised by district officials in the issuing of pauper rations
O. Pensions	11 056 940	11 040 917	16 022	No explanation

Expenditure on TB was in excess of the vote:

<u>Vote</u>	<u>Expenditure</u>	<u>More than voted</u>
1 243 100	1 302 126	59 026

and the excess was explained in terms of 'increased cost of hospitalisation of TB patients, and increased cost of TB vaccines and drugs'. It is clear (see also section on tuberculosis control) that there is no departure from the policy of hospitalisation of TB patients, despite the modern trend towards ambulatory treatment, which should be far more cost-effective both for the patient and for the state.

Funds for expenditure on health are directly derived by the Ciskei government from the South African government.

Staffing

Staffing can be seen as an indicator of the quality of services offered, since, for example, an understaffed clinic or ward will provide a service inferior to an adequately staffed one.

An examination of the medical and nursing staff situation at just one hospital, Cecilia Makiwane, reveals the large number of vacant posts.²⁰ This staff shortage is reflected to a greater or lesser degree in the other hospitals and in the clinics, particularly the rural clinics where usually only two out of the five posts for sisters are filled.

TABLE 8Medical Staff at Cecilia Makiwane Hospital 1980/81

	No of Posts	No filled			
		1980	%	1981	%
Senior Medical Superintendent	1	0	0	1	100
Medical Superintendent	3	1	33	0	0
Specialist	29	Full-time 9) Part-time 6)	52	11) 4)	52
Senior Medical Officer	24	Full-time 8) Part-time 1)	37	10) 2)	50
Medical Officer	48	Full-time 16) Part-time 9)	52	18) 15)	69
Registrar	5	4	80	5	100
Intern	12	4	33	4	33

Although 124 new beds were opened in 1981, raising the number of beds from 716 to 840, the staff remained relatively constant. As the table shows, serious shortages of medical officers remained; only 50% of posts for senior medical officers and 69% of posts for medical officers were filled. Only 33% of intern posts were filled. The number of posts has also remained constant, despite expansion in beds, obviously because of the difficulty in filling even the presently available posts. The fact that so many of the posts are filled only by part-time staff also affects the efficient operation of the hospital.

TABLE 9Nursing Staff at Cecilia Makiwane Hospital 1981

	No of Posts	No filled	%
Chief Matron	1	1	100
Principal Matron	2	2	100
Senior Matron	16	4	25
Senior Sister	91	45	49
Sister	468	284	61
Staff Nurse	307	178	58
Nursing Assistant		127	
Pupil, Student Nurse, Pupil Nursing Assistant	603	404	88

The Cecilia Makiwane report notes that the large number of nursing vacancies reflects the fact that 14 wards still await opening. The addition of 14 wards would not, however, double the size of the hospital. The present occupancy rate of posts for senior matrons, senior sisters, sisters and staff nurses, varying from 25% to 61% (average 48%) is still low - only about half the posts are filled.

The nursing staff table shows an apparent shortage of nurses; that nurses cannot be found to fill the posts. There is, however, a current surplus of black nurses, both in the homelands and in the Republic as a whole. Possibly financial considerations are responsible for the vacant posts.

At the smaller hospitals, staff shortages, and in particular doctor shortages, are a more acute problem, which can seriously affect the handling capacity of the hospital, irrespective of the number of beds available. The fewer doctors there are, the fewer patients can be admitted and the longer they will have to remain in hospital before they are seen; also, fewer people can be seen at OPD.

An examination by Selvan et al ²¹ of numbers of doctors, OPD attendances, and number of inpatients, over a period of about 30 years (1948-1978) at Victoria (Lovedale) Hospital bears this out. The

study shows that whenever staff was limited (sometimes as low as three doctors where there should have been eleven), OPD figures decreased. This was either through the measures of limiting attendance time to 08h30-13h00, or through the local population simply not coming in the same numbers as before, knowing from experience that they would have to wait long hours and even then risk not being seen by a doctor. OPD figures increased whenever additional staff increased the number of doctors. Inpatients figures, however, increased consistently - an indication that the pressure of cases requiring hospitalisation was so strong that they could not be turned away. Doctors in such a situation are forced to work under increasing stress, with less and less time for each patient, for OPD patients, or for teaching of nurses. (This may also be one of the factors deterring doctors from working in these hospitals at all.)

In 1977, for example, there was an average of 147 patients at OPD every day (including Saturdays and Sundays), and an average of 241 inpatients a day. During this year, an average of only four doctors were working in the hospital at any one time. Doctor supervision of clinics is extremely difficult in a situation like this.

It is in the light of the problems of accessibility already mentioned (uneven distribution of services, fees and transport) as well as the problems of staff, particularly doctor shortages, that the following statistics on inpatients (admissions) and OPD attendances should be viewed. If accessibility was improved and staff numbers increased, it would be safe to assume that patient numbers would rise, not because more people were sick, but because more sick people could be treated.

TABLE 10

Admissions and OPD Attendances 1979/1980 ²²

	Total Admissions	OPD Attendances
Cecilia Makiwane	17 544	144 599
Mount Coke	6 577	54 999
Nompumelelo	5 295	23 202
St Matthews	3 861	19 507
Victoria	7 380	*
Total	40 477	242 307

*Figures for Victoria not available.

B HEALTH/DISEASE PROFILE

It is difficult to ascertain the extent of specific diseases or particular health problems in the Ciskei, since there is no consistent and reliable maintenance of statistics, and because the denominator population figures used to calculate rates are so unreliable. Infant mortality rates, one of the best indicators of the health status of a population, for example, are not reliably known, although they are likely to be high.

The Ciskei government, in its glossy publication 'Ciskei at Independence', while enumerating in detail the health services available, had only this to say on the actual health problems: 'Ciskei is afflicted by most of the health problems experienced by developing countries, especially tuberculosis and other infectious diseases. Incorrect diet and inadequate ante-natal care by parents (sic) lead to a high infant mortality rate and require constant attention. The incidence of diseases such as measles and poliomyelitis has been dramatically reduced by means of an intensive immunisation programme. Malnutrition continues to be a problem as in most developing countries.'²³

A more cautious tone is set by Dr H C Beukes, Superintendent of Mount Coke Hospital, in calling for a comprehensive health care service (preventive, promotive, curative, social and environmental services). He says, 'We must not make the mistake of judging our health services according to the size and number of our hospitals and clinics. We must judge them according to our infant and child mortality rate.'²⁴

In view of this dearth of reliable information, one is forced to piece together a profile of health problems from small regional studies, from the statistics that do exist and from impressions formed by health professionals.

Infant Mortality Rate

The Infant Mortality Rate (IMR) is an internationally accepted index of the health status of a population. It indicates, out of every

1 000 babies born alive, the number of deaths before the age of one year. Infant mortality rates are not known in the Ciskei, however, because of the lack of knowledge of number of births. Without this basic information it is not possible to calculate rates.

Both birth and death registration is inefficient in the Ciskei, and the figures therefore unreliable. Births are often not registered at the time, if at all. What does happen, however, is that when a child goes to school at the age of seven, his parents are required to produce his birth certificate. This is then the point at which the mother registers the birth. Sometimes children just use their baptism certificates, so there is no register of their birth. Infant deaths are seldom registered; the child is just buried immediately.²⁵ Children who die while in hospital would have their deaths recorded by a doctor, but even this system is not reliable, as shown, for example, over the period leading up to independence. Forms for death notification were never delivered to the local magistrates, and doctors therefore could not fill them in. Records for the greater part of the year were lost.²⁵

Despite the lack of reliable statistics, professionals in the Ciskei have made informed estimates of the infant mortality rate. One estimate puts the rate at 200 deaths per 1 000 live births.²⁶ Dr Trudi Thomas, in her paper 'Malnutrition in the Ciskei', posits different rates for urban and rural areas. In Mdantsane, the best-served area in terms of health facilities, she gives a figure of more than one death in ten, during the first year (IMR of 100/1 000). In the rural areas where it is more difficult to gather figures, she suggests that 25 out of every 100 do not survive their first year (IMR of 250/1 000). She compares this to a death rate of 1 or 2 out of 100 well-nourished children, in their first year (IMR of 10-20/1 000).²⁷

The only other study of IMR is one done in 1937 by Dr F W Fox, who carried out a survey of 1 300 live births in the Ciskei, noting the number of deaths in the first year. He calculated the mortality at 164/1 000).²⁸ It is interesting to note that the IMR appears to have risen considerably.

Malnutrition and Undernutrition

Trudi Thomas quotes child malnutrition figures from a 1978 nutrition survey carried out by a group of doctors for the Ciskei government.²⁹ This survey showed that roughly 50% of 2-3 year-olds were under-nourished. One child in ten in the urban areas, and one in six in the rural areas, were suffering from 'sickness forms' of malnutrition - kwashiorkor and marasmus.

A study by du Plessis et al (1978)³⁰ of 713 randomly-selected children, aged between 6 months and 8 years, from 10 rural areas, produced the following results for diagnosed nutritional diseases:

TABLE 11

Percentage Incidence of Four Nutritional Diseases

	6 months - 2 years		3 - 4 years		7 - 8 years	
	Rural	Urban	Rural	Urban	Rural	Urban
Kwashiorkor	10,6	3,7	6,7	0,7	2,6	-
Marasmus	5,3	4,6	2,0	3,6	0,9	-
Rickets	1,1	-	2,7	0,7	1,7	-
Pellagra	1,1	-	1,3	-	6,0	-

The Quail report cites an even higher figure for kwashiorkor in the 6 months to 2 years age group, of 27%.³¹ Trudi Thomas states that 'even in the best hospitals' one out of six children suffering from kwashiorkor will die. She also mentions a follow-up of 150 children who had kwashiorkor in the Keiskammahoek area. By the end of six weeks, 75 of these children were dead.³²

Trudi Thomas has shown the relation of socio-economic factors to under-nutrition and malnutrition, in a study of 223 children with kwashiorkor (K), 70 who had low weight for age (LWA), and 216 well-nourished (WN) children.³³ Social circumstances, home background, mothers' educational level and families' financial resources were

investigated. It was found that the WN and LWA children enjoyed normal family life within the limits imposed by migrant labour. The families of LWA children were less well off financially than those of the WN children, and the undernutrition was directly related to the families' poverty. The K children not only came from poverty-stricken homes, but also from broken homes, where the parents were separated, the father often having deserted the family, and the mother therefore being forced to seek work and leave the child in the care of unwilling or handicapped guardians.

Dr Thomas concluded that malnutrition diseases result not only from food deprivation (in a poverty economy), but in addition from social deprivation in a disorganised community. It is interesting to note, however, that poverty is actually the overriding factor - in the kwashiorkor group, even though more children did come from 'broken homes', the families were far more destitute than any of the others (see Thomas's results - Appendix 2). Trudi Thomas also found that a mother's education was irrelevant to her child's nutritional status (slightly more mothers of K children (80%) had attended school than mothers in the other two groups (75%)).³³ She states elsewhere that 'nutrition education is usually recommended in situations where it cannot be applied. Mothers at clinics can often recite perfectly the lessons they have been taught about what their children should eat and how to mix milk. However, it is no good having the recipes if you do not have the ingredients'.²⁴

Fincham, in the report on his nutritional survey in the Amatola Basin,³⁵ indicates in another way the relation of economic factors to malnutrition, showing how close to the 'breadline' people live. He quotes the clinic sisters of Komkhulu clinic, who state that drought is a key factor affecting the nutritional status of young children. Crop yields fall off, stock loses condition, and kwashiorkor cases rise. The records kept by the Nutritional Clinic at St Matthews Hospital for the Amatola Basin bear this out: A serious drought in 1979/1980 is reflected in higher numbers of children at risk to malnutrition, and the numbers drop again when the drought breaks in October/November 1980:

TABLE 12

St Matthews Hospital Nutrition Clinic
 Record of Amatola Basin Children on Supplementary
 Feed and at Risk to Malnutrition, January 1977 to
 October 1981 - Children Under the Third Percentile³⁵

	NUMBER OF CHILDREN				
	YEARS				
	1977	1978	1979	1980	1981
January	12	18	50	NT	NT
February	13	19	60	NT	NT
March	23	22	66	NT	42
April	23	20	76	NT	22
May	23	26	82	105	35
June	23	20	55	100	21
July	3	19	61	NT	50
August	27	28	68	94	22
September	NT	27	86	116	31
October	21	31	90	108	41
November	2	38	100	79	-
December	23	38	82	54	-

NT = No Transport (The lack of transport in some months is presumably due to breakdown of vehicles - a factor which obviously has a serious effect on services.)

Nutritional deficiencies interact with and aggravate the communicable diseases which occur frequently among children: diseases like diarrhoea, measles, pneumonia and tuberculosis. These diseases are thus far more serious in an environment like the Ciskei. Measles, for example, may cause undernourished children to have a mortality 400 times higher than that of their well-nourished counterparts.³⁶

Obviously malnutrition does not only occur in children. As a disease and condition of poverty, it affects particularly those who cannot compete on the labour market - the old, the disabled (both mentally and physically handicapped), and those suffering from tuberculosis,

a disease both brought on and aggravated by poverty.

Tuberculosis

Although TB is a notifiable disease (in terms of an Act of Parliament), and is denoted such in order to provide data necessary for 'disease surveillance' and more effective control, the quality and comprehensiveness of notification figures is questionable, particularly for blacks, and even more particularly for 'independent states'.

Notification figures for the Ciskei are available, but they should be regarded with extreme caution. As the following table of TB death notifications shows, some years have clearly not been fully documented, i.e. notifications were not received in Pretoria. The extremely low figures for some years are also patently incorrect:

TABLE 13

TB Deaths. Notifications to Department
H W & P (RSA) 1971-1980

	Ciskei	cf Transkei
1971	11	182
1972	3	258
1973	1	366
1974	2	206
1975	2	187
1976	2	112
1977	0	151
1978	0	89
1979	0	10
1980	1	3
Total	22	1 564

Notification figures (cases, not deaths) from Ciskei for 1981 are:³⁷

TB Pulmonary	1968
TB Meninges	17
TB Total	2007

A TB prevalence rate (cases per 1 000 population) constructed from these notification figures and Department of Statistics census figures would be 3,07, but it is clear that this is far too low an estimate.

The number of notifications could be compared with the figures for First Visits for TB (new cases) in 1981 from the twenty clinics under Cecilia Makiwane Hospital alone (where an attempt is made to keep more accurate statistics). The figure here is 3 067.³⁸ A rate constructed for the Mdantsane district (population 179 000) would be 17,13 per 1 000. True rates for other areas could be assumed to be even higher since Mdantsane has better health facilities in general than the rural areas, as well as a higher general standard of living.

It is clearly impossible to gauge what the real extent of TB is, although the rate is obviously high.

C SPECIALISED HEALTH EFFORTS

Even without reliable statistics, it is clear that the main health problems are under- and malnutrition, and tuberculosis, both preventable diseases related to poor socio-economic conditions. A range of efforts are directed at these problems, some of them more successfully than others. More rigorous assessment of the successes and failures of different approaches is needed; what is noted here is merely a brief description of the procedures involved, with recorded comments by health professionals and others as to their appropriateness and degree of success.

Apart from efforts directed towards reducing morbidity and mortality of particular diseases, another area which has come under special attention is health services per se, and the need to extend them to the periphery - in other words, the need for primary health care, both preventive and curative services provided in an accessible form. The interesting aspect of this area (which emerged in interviews with various health professionals) is the appearance of contradiction: in general, the administrative level of health services and those most removed from patient contact are more inclined towards an extension of hospitals and curative services, whereas lower level health professionals as well as certain medical personnel such as hospital superintendents favour the development of a more appropriate comprehensive health care system - preventive, promotive, curative, social and environmental services. Contradictions also appear within these broad categories. Nevertheless, initiatives towards projects such as the training of primary health care sisters and village health workers are taking place and these developments are noted with limited comment.

This section thus considers malnutrition, TB, and the special health teams aimed at providing primary health care.

MALNUTRITION

Different views on the predominance of certain causes of malnutrition over others account for the range of different approaches to the problem. For some, malnutrition is a result of the ignorance of

parents, who feed their children only maize, and the solution lies solely in educating them otherwise. This is an extreme position; most people concerned about malnutrition acknowledge that poverty is at the root of the problem and that it is poverty that needs to be addressed in whatever way. So the 'solutions' to malnutrition range from education programmes, through feeding schemes, to attempts to promote self-reliance by means of increased agricultural productivity. Rehabilitation is also applied in the case of diagnosed malnutrition cases; this involves both curative and educational efforts.

It is clear that malnutrition is a current and serious problem, requiring both short-term and long-term attention. While the long-term solution involves a restructuring of social and economic relations to break the cycle of poverty, starvation must be confronted in the short-term. Current attempts to do this need to be assessed and improved.

Usage of Services

To begin with, there is the contention that children born in clinics and hospitals, and followed up with post-natal care by the clinics, will be far less likely to suffer from malnutrition. It is obviously desirable for mothers to make use of the health services for delivery and post-natal care, so that the nutritional status of their children can be monitored by trained staff.

However, it cannot be assumed that most women will deliver in clinics. Although a recent survey by Visagie et al³⁹ found that 70% of all children born in the Ciskei were born in clinics or hospitals, this is not the impression of many people working in the health services. The Senior Matron at Cecilia Makiwane is of the opinion that rural people do not come to the clinic for delivery; they deliver at home, but come in high numbers for ante-natal care (attendance being much better than twenty years ago).⁴⁰ Factors like transport and distance from clinics are the telling ones; one rural woman stated that 'the clinics are good, but they are too far away. Mothers deliver their babies in the road, because they can't get all the way to the clinic on time'.⁴¹

In addition, as Fincham has shown in a nutritional survey of children in the Amatola Basin, the number of children at risk to malnutrition does not appear to increase as distance from the clinic increases (and clinic usage decreases).⁴² Nutritional status depends more on factors such as household income and availability of food. Health services are clearly important in monitoring children's nutrition and in rehabilitation, but the preventive measures have to start below the level of hospitals and clinics.

Feeding Schemes

Feeding schemes represent an attempt to deal with poverty and the non-availability of nutritious food. The main thrust of feeding schemes has been the provision of protein-rich foods. In this regard, health personnel still refer to protein deficiency as being the prime cause of undernutrition diseases.

Recent and authoritative research has shown, however, that under-nutrition syndromes are in fact due to energy rather than protein deficiency. Maize provides sufficient protein, but because it is a high-bulk food when cooked, it is difficult for a child to eat sufficient amounts in one sitting to satisfy his/her energy needs. The protein therefore cannot be used as protein and is burnt as energy. Extra protein will be of no value whatsoever as body-building food until energy requirements have been satisfied. Since fats and oils are high energy foods, it makes more sense to supplement the diet with fats and oils rather than with protein; not only will this allow the already sufficient protein intake to be utilised, but also less food (volume-wise) will have to be consumed to meet energy requirements.⁴³ This information has significant implications for feeding schemes: more energy-rich foods like fats and oils, rather than traditionally-used protein (particularly in forms such as skim milk, which has had fats and oils removed, and PVM) are indicated. To date, however, attempts in this direction have not been made.

Visagie et al⁴⁴ propose widespread food fortification to overcome vitamin and mineral deficiencies resulting in diseases like pellagra. They advocate the distribution of skim milk powder fortified with

Vitamins A and D, and the fortification of all maize sold with riboflavin and nicotinic acid. Since May 1978 the Ciskei government has been distributing skim milk to underweight pre-school children through the clinics. Each child receives 500g per week at a nominal cost of 20c per child, free if, at the clinic sister's discretion, this cannot be afforded. This scheme costs R60 000 annually, while adoption of the two fortification schemes would cost about R1 million a year, a figure the Ciskei treasury has not been able to vote.⁴⁵ (Annual expenditure on health is about R10 million.) The existing feeding scheme, while better than nothing, falls short of providing essential nutrients, reaches only children who are brought to the clinic, and does not extend to school-going children. It is interesting in this regard to note Trudi Thomas's comparisons of the Ciskei situation with that of the 'poor whites' in the 1940's, when white children received free school lunches of soup, meat, bread, fruit, nuts and raisins.⁴⁶

Education

Education is seen as a priority by many, and nutrition education is stressed in the training and duties of community health nurses, clinic sisters, and village health workers. There is also a nutrition rehabilitation unit at Nompumelelo, Peddie, the only one in the Ciskei. Three rondavels accommodate the mothers of malnourished babies, who stay for three weeks while their children are being treated. During this time they are taught about nutrition. An attempt is made to simulate home conditions - cooking on a fire, etc. A gardening project is run in conjunction with the unit, and the vegetables are used for demonstration, both in growing and using them, and also sold cheaply to the local community.⁴⁷ The unit has had some success, but as a Peddie doctor's wife commented: 'The hospital is not reality, it is not home. The mother hasn't got money, when she returns from the hospital she starts stretching the milk again, and the baby gets malnourished again. If you are talking about beans, proteins, etc she will agree with you, but she cannot do it in the home situation.'⁴⁸

Other Measures

Trudi Thomas stresses two other measures, which are being carried out to a certain extent, as having a bearing on malnutrition. These are immunization, against TB, measles, etc (diseases which 'eat up' a child's body, and which 'interact with and aggravate malnutrition) and family planning. She points out, however, that big families are not necessarily malnourished ones, if they are stable families with the means to provide an adequate diet. It is 'unwanted' children, victims of desertion and malnutrition, whose birth should be prevented by means of contraception.⁴⁹ It has been shown, however, that birth rates do not decline until socio-economic conditions and social security networks⁵⁰ improve. Once again it is this area that has the most bearing on malnutrition.

In addition to the state feeding scheme, there are a few church-aided and implemented feeding schemes in some areas, particularly resettlement areas where malnutrition is particularly bad. The Quakers (Friends of the Ciskei) used to run a porridge-feeding scheme at Kammaskraal (before the people there were resettled a second time, near Peddie), but they lack funds to keep the scheme going adequately. Bulk-buying of food, and reselling at very low prices has been organised in some resettlement areas through the Border Regional Council of Churches and the Diocese of Grahamstown. Vegetable growing schemes are also operating, but 'in some areas there is uncertainty about the future all the time, therefore there is a lack of motivation to plant. The people may be moved again and must start from scratch'.⁵¹

TUBERCULOSIS

TB control in the Ciskei is run centrally; management is done at the outlying clinics but the programme is controlled from King William's Town. The facilities available for TB sufferers are: a chest hospital in Mdantsane, Nkqubela Chest Hospital, TB sections in each of the rural hospitals (except Victoria), and outpatients treatment points at the clinics as well as the points visited regularly by the mobile TB teams. There are 14 such teams, based in King

William's Town, but in future the system will be decentralised and teams will be based in the hospitals of each district.⁵²

All babies born in hospitals are supposed to be given the BCG vaccination. The School Health Service also runs an immunization programme, whereby children are Heaf tested, given BCG vaccination, put on treatment if necessary and given polio and measles vaccinations. Pre-school children are also reached through the mobile clinics for BCG vaccinations, and a feeding scheme operates through these TB teams to provide TB children with biscuits, milk and soup for a small sum of money.⁵³

It should be noted, however, that the efficacy of BCG in actually preventing TB, especially when used in populations with high malnutrition, has been questioned. A study of a malnourished population in India showed in fact, that it was not effective.⁵⁴ A doctor in Peddie commented on the relationship between TB and malnutrition that, 'TB patients are cured but tend to get reactivation because of the conditions they are living under. Babies get BCG but they still often get TB because of malnutrition'.⁵⁵

Once patients present themselves at the clinics, the procedure is to do a Heaf test and send the sputum to the laboratory and the patient to the hospital for an X-ray. If TB is suspected, clinic staff are supposed to put the patient on treatment immediately, as this would not be harmful if the diagnosis were to prove negative.⁵⁶

The TB policy applied by hospitals was outlined by a medical superintendent in an interview as follows:

Short-course therapy is used in hospitals. The basic policy is that rifampicin is only to be used in hospitals and that cases must be admitted for six months, rifampicin requiring good supervision to prevent resistance. (This seems strange in view of the fact that rifampicin is designed to be used as the basis of outpatients treatment.) This is difficult for most patients since TB is not a disability disease (i.e. a disease qualifying the sufferer for a disability grant, and defined as being an untreatable disease) and

therefore patients cannot get a grant for financial assistance; they also lose six months' wages. Some hospitals will discharge those patients living close to clinics, so that they can continue to work, but this is the exception rather than the rule with admitted patients. The alternative to six months admission is a longer course of treatment, beginning with six weeks admission, and followed by a 2-3 times weekly drug regime, allowing patients to continue working, and receiving treatment at outpatients' clinics for up to two years. Here the main problem is that of migrant workers, who frequently stop their treatment when they go back to work; their circumstances make it almost impossible to sustain a long course of therapy. The results are, on the one hand, that they do not get cured, and on the other hand, that infection is more widely spread.

Case finding is restricted to tracing of contacts. Members of the TB teams visit the homes of diagnosed or admitted patients, do Heaf tests of the children and send the adults for X-rays.

There is a need for a proper assessment of TB services; little information exists on the real extent of the problem, or of the real effectiveness of the health services in dealing with it. The existing programme may not be the most effective. Constraints and blocks need to be identified and addressed on an informed basis.

Special Health Teams

As mentioned elsewhere, special health teams operate from the hospital in each district, in an attempt to extend health services to the periphery. These are:

- (a) A school sister in each district, who visits local schools to give health education talks on personal hygiene, diet, dental care, etc and who also examines children for skin conditions, eye problems, ear defects, malnutrition, etc. This service is somewhat limited by lack of staff, as one sister cannot reach all schools on schedule.⁵⁷
- (b) TB teams, as already mentioned.

- (c) Dental therapists - who have three years' training, and who visit schools on the same basis as the school sister, to provide services such as fillings, extractions and preventive treatment. The majority seem, however, to be extractions - the Cecilia Makiwane report lists 1 900 in 1981. It is not clear from reports how extensive this service is.
- (d) Social workers. A social worker is based at each hospital and some clinics, to assist patients with social problems, disability grants, pensions, maintenance grants, etc. Social workers are also based at each of the Magistrate's Offices, to deal with social welfare problems and district social work. As yet only a few of the clinics have social workers. Social workers are, in general, handicapped by lack of office accommodation, and lack of sufficient transport to do home visits.⁵⁸
- (e) Family planning programme. Family planning guidance is provided in all clinics and hospital outpatient sections. A Tutor and a Senior District Nurse are sent on two months intensive in-service training programmes to Pretoria (Department of Health), and the Tutor then trains nursing students in the hospitals, while the District Nurse is responsible for stressing family planning at district level in the clinics. Her role is the organisation of family planning, as well as motivational visits, while the clinics dispense contraceptives.
- (f) Village health workers. Some attempts have been made to train certain members of villages in preventive and promotive health, as well as first aid. This is done by the district hospital which selects villages and asks the headman in each village to bring forward three people, who must have at least Std 6. One of them is chosen and trained for six months. The village workers then become enrolled assistant nurses. Their task is to visit every home in the village, fill in a card for the family, try to identify problems and health needs, do health education and motivate people to use the services. Their main task is to give information on nutrition - breast-feeding, etc and also to follow up malnutrition cases.⁵⁹

A team of village health workers has just completed training at Nompumelelo Hospital, Peddie, (September 1982) and a similar project in Mdantsane has recently been started. An agency working outside the Department of Health, the Health Care Trust, has also attempted to set up a series of village health worker projects in different areas. A description of these projects can be found in a collection of papers from a recent conference on Village Health Workers.⁶⁰ It is too early, however, to evaluate the success of these projects. It will be necessary to monitor, over time, whether the village workers are being effective, whether, for example, they have been able to assist in the home management of diarrhoea, home deliveries, etc and whether they are able to have some influence on malnutrition patterns.

- (g) Primary health care sisters. A year course for Primary Health Care sisters is due to begin at Cecilia Makiwane next year. This will equip sisters with clinical skills, in addition to the basic nursing training they already have. Some paediatric training of sisters in clinics has already taken place on a small scale - a month training course in clinical paediatrics was undertaken recently. The PHC sisters will, however, be far better equipped to deal with a range of health problems. This project, too, will have to be assessed in practice, and efforts made to avoid the problem experienced in urban areas where PHC sisters have been introduced (Cape Town and Johannesburg), namely, that of prejudice from patients who see the sisters as second-rate doctors, when in fact they have a valuable contribution to make.

REFERENCES

1. Hammond, M, 'Legislation and control of "homeland" health services', Department of Community Medicine, University of the Witwatersrand.
2. Klopper, Dr J M L, 'Health and welfare services', Department of Health and Welfare, Ciskei Government, 1978.
3. Ciskei Government, Republic of Ciskei.
4. Interview with Superintendent, Cecilia Makiwane, September 1982.
5. Selvan, D, Engelbrecht, H and Fincham, R, 'Health facilities and socio-economic aspects of disease in the Ciskei region',

- SALDRU/SAMST Conference on the Economics of Health Care, 1978.
6. Interview with woman near Peddie, September 1982.
 7. Quail Report, p 32.
 8. Population figures - RSA Census 1980. Beds - Ciskei Government, Republic of Ciskei, p 200.
 9. National Plan for Health Services Facilities - SA Department of Health.
 10. Ciskei Government, Republic of Ciskei, p 200.
 11. Ibid, p 84.
 12. Selvan et al, op cit, p 25.
 13. Bekker, S B, de Wet, C and Manona, C W, 'A socio-economic survey of the Amatola Basin', Development Studies Working Paper No 2, ISER, Rhodes University, p 48.
 14. Cecilia Makiwane Hospital Annual Report 1981, p 6.
 15. Ciskei Government, Republic of Ciskei, p 83.
 16. Selvan et al, op cit, p 30.
 17. Report of the Auditor-General of the Ciskei Government 1979/80.
 18. Ciskei Government, Ciskei at Independence, p 102.
 19. Quail Report, p 32.
 20. Cecilia Makiwane Report 1981.
 21. Selvan et al, op cit, pp 31-37.
 22. Ciskei Government, Republic of Ciskei, p 200.
 23. Ciskei Government, Ciskei at Independence, p 102.
 24. Mercury, (King William's Town) 29/7/1982.
 25. Interview with Dr and Mrs Charles Bekwa, Peddie, September 1982.
 26. Quoted in Sunday Tribune report by Ingrid Stewart, 27/6/1982.
 27. Thomas, Dr T, 'Malnutrition in the Ciskei', Friends of the Ciskei.
 28. Fox, F W, 'Infant mortality in the Ciskei and Transkei - 1937', SALDRU/SAMST Conference, September 1978.
 29. Thomas, Dr T, op cit, p 1.
 30. Du Plessis et al, 'Baseline for the development of a nutritional guidance programme for Ciskei', SALDRU/SAMST Conference, 1978.
 31. Quail Report, p 30.
 32. Thomas, Dr T, 'Malnutrition in the Ciskei'.
 33. Thomas, Dr T, 'The social background of childhood nutrition in the Ciskei', Social Science and Medicine, Vol 15A, 1981.

34. Thomas, Dr T, 'Malnutrition in the Ciskei'.
35. Fincham, R J 'The nutritional status of pre-school children in the Amatola Basin', Development Studies Working Paper No 9, ISER, Rhodes University 1982, p 16.
36. Morley, D, Paediatric Priorities in the Developing World, Butterworths, London, 1973.
37. Epidemiological Comments, October 1982, Department of Health.
38. Cecilia Makiwane Report 1981, p 7.
39. Quoted in Quail Report, p 30.
40. Interview with Senior Matron Caza Cecilia Makiwane, September 1982.
41. Interview with woman in Peddie district - Nonquise.
42. Fincham, op cit, p 51.
43. (i) Waterlow, J C and Payne, P R, 'The protein gap', Nature 258(5531), pp 113-117.
(ii) Dearden, C, Harman, P and Morley D, 'Eating more fats and oils as a step towards overcoming malnutrition', Tropical Doctor 10, pp 137-142, 1980.
44. Quoted in Quail Report, p 31.
45. Quail Report, p 31.
46. Thomas, Dr T, 'Malnutrition in the Ciskei', p 5.
47. Interview with Dr Conradie, Superintendent, Nopumelelo.
48. Interview with Mrs Bekwa, Peddie, September 1982.
49. Thomas, Dr T, op cit, p 6.
50. 'Accelerated population growth: The agricultural revolution to present prospects', Shaine, R M and Lane, R A in Fertility Control, Shaine, R M (ed), Harper and Row, Hagerstown, 1980.
51. Interview with Rev Alf Dhlamini, September 1982.
52. Interview with Dr Harris, Superintendent, Cecilia Makiwane.
53. Klopper, Dr J M L, op cit.
54. Baily, G V J et al, 'Tuberculosis prevention trial, Madras', Indian Journal of Medical Research 72, July (Supplement) 1980, pp 57-72.
55. Interview with Dr Bekwa, September 1982.
56. Interview with Senior Matron Caza, Cecilia Makiwane, September 1982.
57. Information from M N Bam, Registered (School) Nurse, Cecilia Makiwane.
58. Klopper, Dr J M L, op cit, p 18.
59. Interview with Dr Conradie, Superintendent, Nompumelelo Hospital, Peddie, September 1982.
60. Conference Papers, Village Health Workers, Health Care Trust, September 1982:
(i) 'Village health workers at Newlands and Chalumna' by Dr T Thomas, Cecilia Makiwane, Ciskei.
(ii) 'The primary health care project in the Peddie District' by Dr H H Conradie, Nompumelelo Hospital, Ciskei.

CONCLUSION

This study is a 'descriptive assessment' of the health situation, and in particular health services, in a given geographical area - the Ciskei. Various problems and blocks have been identified in the course of the study. These can be tentatively drawn out and pulled together, by way of summary, and by way of systematising the more immediate obstacles that have to be overcome. The blocks can be grouped in four categories (following UNICEF/WHO Alternative Approaches to Meeting Basic Health Needs in Developing Countries): Approaches; Resources; Structure of Services; and Technical Weaknesses.

1. Approaches

(i) Poor linkage of health services system with other components of development. There is little evidence of coordination in the provision of basic needs, employment, etc alongside health services.

(ii) Inadequate community involvement in providing health care. There is no consultation of people about their health services or allowance for community control of part of the services. Even village health workers are not elected and have little say over what they do.

2. Resources

It is clear that resources are inadequate and that most of the financial resources are allocated to hospitals. The shortage of resources affects the large, needier rural population most. Problems affecting accessibility of services also mean that the resources offered by services are often not used to their full potential.

3. Structure of health services

The fact that health statistics are inadequate means that there is a lack of information on which to base effective planning, and health services are not always structured or developed with a view to the health needs of the population. Services are also structured in accordance with outdated approaches; TB cases have to be hospitalised, for example, so more resources are allocated to TB beds than to staff who could coordinate ambulatory care.

4. Technical weaknesses

The lack of basic sanitation, deficiencies of transport such as ambulance shortages, and the lack of adequate health information referred to above are all technical shortcomings in the health services that undermine its efforts.

There is also clearly a need for research, for evaluation of aspects of the health services, in order to inform sound decision-making.

It is clear that the above 'blocks' are not the only obstacles to improved health. As has been mentioned at various points in this paper, changes in health status will not be brought about without radical improvements in living and working conditions. Such improvements are predicated on substantial changes in the generation and allocation of resources, and in the balance of social, political and economic forces. An integrationist approach is necessary, both in the study of health and health services, and in the development of solutions/interventions. But a given area like the Ciskei is not just a 'black box', into which things can be put to solve shortcomings. The Ciskei, both within its borders, and in its relation to the rest of South Africa, consists of different groups in different power relations to one another, as part of a dynamic historical process. It is this process which also needs to be addressed, if health is to be improved.

APPENDICES

APPENDIX 1 : RESETTLEMENT IN THE CISKEI

(Acknowledgement : N Charton:
'Resettlement in the Ciskei',
unpublished paper, June 1982)

<u>DATE</u>	<u>FROM</u>	<u>TO</u>	<u>TYPE OF SETTLEMENT</u>	<u>ESTIMATED NO. OF PERSONS</u>
<u>1 Rural</u>				
1975	Riemvasmaak, N Cape	Welcomewood	Agricultural, small plots	215 (1)
1976	Wittekleibosch Doroskraal Humansdorp	Elukhanyeni Keiskammahoek	Close settlement	2 000 (2)
1976	Glen Grey Herschel Aliwal N. Burgersdorp Noupoort	Thornhill Zweledinge Oxton, etc	Close settlement	51 429 (2)
Not known	White farms	Chalumna		20 000 (2)
1980	Alexandria	Kammaskraal	Close settlement	1 000 (2)
1978	Bushmans River Kenton on Sea Coega Colchester Alexandria Grahamstown	Glenmore	Close settlement	4 200 (2)
<u>2 Peri-Urban</u>				
1958	White farms	Kayaletu (Alice)		1 066 (4)
1974	Not known	Iliitha (Mdantsane)		2 000 (4)
1976	Komgha Kei Mouth Mooiplaas	Potsdam (Mdantsane)		5 000 (3)
1979	Zwelitsha East London	Ndebana Phakamisa (Zwelitsha)		85 000 (3) 3 000 (3)
<u>3 Urban</u>				
1962 and onwards	East London Duncan Village	Mdantsane		178 743 (5)
1969	Midlands Karoo & W Cape	Sada Dimbaza		20 770 (4) 8 813 (4)

-
- (1) Press Reports
 - (2) Diocesan Report on Resettlement : N Charton 1979 (unpublished)
 - (3) Resettlement in the Ciskei : P Hall 1982 (unpublished) figure adjusted to exclude Ndebana and Phakamisa
 - (4) G Cook 1980 p 36
 - (5) P Smit and D Kok 1981

APPENDIX 2: THE SOCIAL BACKGROUND OF CHILDHOOD NUTRITION IN THE CISKEI - G C Thomas, Results of Study

	Well-nourished group	Low weight for age group	Kwashiorkor group
1 Percentage ratio boys/girls	57/43	50/50	47/53
2 Mothers educational level			
(a) % illiterate	25	25	20
(b) % primary school	42	45	54
(c) % secondary school	33	30	26
3 Illegitimacy rate	26%	30%	62%
4 Immediate guardian of child			
(a) % ratio mother/other	91/10	92/8	44/56
(b) Details guardians other than mother	8%	8%	33%
(i) Grandmother			
(ii) Greatgrandparents, young children, teen-agers, hired nanny, male relative	2%	0	23%
5 % Unsuitable or handicapped guardians eg senility, madness, mental defect, sickness, blindness, resentment, young teenagers	2	0	25
	(All mothers)		10% mothers 15% other relative
6 Circumstances of mothers caring personally for child			
(a) % mothers supported by child's father	78	67	33
(b) Average amount per person per month from father, when contributing	R2-25	R2-25	R1-30
(c) % mothers not supported due to			
(i) desertion	13 = 22%	23 = 33%	50 = 67%
(ii) death, sickness, gaol, unemployment, etc	9	10	17
(d) % mothers destitute	1	5	10
7 Mothers NOT caring personally for children			
(a) Actual number	22	6	124
	<u>216</u>	<u>70</u>	<u>223</u>
Number in category			
Reasons			
(a) Working because father deserted	10	3	57
(b) Working because father's contribution inadequate	0	0	7
(c) Working for other reasons eg widows, training	3	0	3
			(Less than R1/m)

(d) Mother abandoned child	2	1	20
(e) Mother dead	0	0	9
(f) Other - gaol, schoolgirl, visiting father in town	5	0	27
8 Fathers whereabouts			
(a) % migrant workers	76	82	86
(b) % living with family	22.5	17	6.5
(c) % living with family and employed	92	66	10
(d) % other reasons for not living with family eg hospitalised, gaol, married to another woman	1.5	1	7.5
9 Fathers support			
(a) % fathers supporting	71	66	14
Average monthly contribution if supporting	R9-00	R11-00	R4-50
(b) % fathers not contributing	29	34	86
(c) % deserted	18	26	70.5
(d) % unemployed	3	3	7.5
(e) % dead	5	8	5
(f) % gaol, hospitalised, mad	3	3	3
			} = 15.5%
			} = 11%
			} = 14%
10 Cash per person per month in unit in which child was living			
(a) R3 or more (price of paupers rations 1974)	56%	16.5%	2.2%
(b) Land but no cash	5%	5%	2%
(c) Destitute	2%	6%	14%
11 Family size			
(a) Average number living children	3.1	3.5	3.5
(b) % mothers with 1-3 children	71	54	59
(c) % mothers with 4-5 children	15	33	25
(d) % mothers with 6 or more children	14	13	16
(e) Average number of people living in child's unit	5.5	6	6.3
12 Family composition			
(a) Integrated families			
(i) Nuclear units (father head of family and mother caring for children)	7%	62.5%	10%
(ii) Extended family (more than one self-supporting component, father one breadwinner, and mother caring for child)	76%	12.5%	14%
(iii) Total integrated families (i) and (ii)	83%	75%	24%
(b) Child living with other units, with or without mother, no father	17%	25%	76%
(c) % children entirely dependent on relative's old-age pension	0.5%	3%	14%