THE HEALTH NEEDS AND PRIORITIES OF A SEMI-URBAN AFRICAN COMMUNITY

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CHAPTER 1 SUMMARY OF REPORT ON HEALTH NEEDS AND PRIORITIES : MARIANNHILL II LOCATION, PINETOWN

This commentary is essentially a report on various aspects of assessment of health needs and priorities in a peri-urban black community (mainly African) situated near Pinetown. The study was initially conducted under the auspices of the Pinetown Health Department, and the main findings are as follows :

(a) The geographical area of Mariannhill II Location includes what the local people call "Impola" and "Tshelimnyama", and sustains a population of 3 000 persons on some 500 hectares.

(b) The origins of the population have been found, contrary to popular belief, to be 92% urban and semi-urban, and only 8% rural.

(c) Demographic characteristics are those of an established stable community with a high mortality rate and high fertility (135 live births per 1 000 women aged 15 - 49 years per annum). The sex ratio is 99.4 males per 100 females, and there are no migratory characteristics.

(d) The average number of individuals per household is 9, with a lot of overcrowding per room (not quantified). Of 1 346 adults of working age 43.68% are unemployed.

(e) Morbidity and mortality studies conducted both at the level of the community and hospital revealed that children under the age of one year had the most sickness episodes, while the age groups 6.1 to 18 years had the least.

(f) The disease profile is that of a typical third world developing country, with predominance of infections, accidents and physical violence.

(g) Diarrhoeal disease constituted about 11% of the profile and was significantly associated with the water source for the household.

(h) The most important cause of the 33 deaths reported over a one year period is motor vehicle accidents and physical violence (33.3%).

(i) The major health resource is the local St Mary's Hospital with a 55% uptake of sickness episodes from the community. Nearly half of these ended up as in-patients.

(j) 60% of children under the age of 6 years were estimated to have been fully immunized, and virtually all of it had been done by the hospital.

(k) Community opinion on their problems and needs overwhelmingly pointed at water, clinic and lack of transport facilities as urgent matters. However, careful assessment of community concern pointed to the threat of removal as the most important single community problem, with implications for housing and all the other perceived problems. The majority of the people looked up to the Catholic Mission as a possible source of help to resolve the problem of availability of water.

(l) As the study was initiated with a view to interventive strategies, the main findings are discussed against a background of information distilled from several literary sources, and recommendations for action are advanced.

(m) Lastly, the most important problem in data collection has been that of inaccessibility of the Pinetown register of births and deaths to the Pinetown Medical Officer of Health. We regret the difficulty, but we hope to update our study when the problem has been overcome.

CHAPTER 2 INTRODUCTION

2.1 General Introduction
2.2 Historical Background
3.2 Community Diagnosis

2.1 GENERAL INTRODUCTION

"Health is not the only thing, but everything else without health is nothing" - by Dr Mahler, WHO (15).

The health of any community constitutes the very essence of the quality of life for that community as it permeates all activities of individuals and groups. As each community has its own dynamics of survival as an "organism" in its own right, its health does not only depend on, but is also far greater than, the sum total of the individuals and groups within it. The definition of health as "the state of physical, mental, spiritual and social well-being" applies right across all dimensions of existence, from the individual to the biggest of all communities.

The above remarks provide the reason why the goodness of health for all persons and groups is now accepted with universal enthusiasm, embodied in the familiar phrase : "Health for all by the year 2000" (16, 17).

Two questions could then be asked :

(i) Who decides on what is good health for a specific community ?

(ii) How is that decision to be implemented and evaluated ?

These questions are searching and yet very exciting as they pose a formidable challenge to the medical profession in general, and community medicine in particular. These are also the questions that provided an impetus to this study, and some of the answers will be provided in the various chapters of this report. In this regard, the historical background of the Mariannhill II community is important for providing insight into the present. Moreover, the concept of "community diagnosis" and "primary health care" will flourish or perish depending on how they address themselves to the above two questions.

2.2 HISTORICAL BACKGROUND

After Jan van Riebeeck had landed at the Cape in 1652 various Missionary organisations were attracted to South Afirca. However, it was only 230 years later that the Mariannhill Missionaries settled in Natal from Europe, with the aim of spreading Christianity.

"The premier concern of the Founder of Mariannhill, and those who were to work with and follow after him, was to bring the Catholic Christian Faith to the indigenous peoples of Southern Africa" (1).

"Two approaches to introducing Chritianity were evident. One aimed at penetrating the tribal organisation and working within it, while the other opted for acquisition of large tracts of land upon which 'tenants' could be settled and then converted to Christianity" (2).

Abbot Francis Wendolin Pfanner and his monks (the founders of the present Mariannhill) had opted for the latter strategy when three major farms by the names of Zeekoegat, Klaarwater and Stockville were bought from the Land Colonization Company between 1882 and 1885 (3,4). The overall extent of the land was 12 000 acres (4 860 ha).

It is worthy of note that quite a number of African people had already lived on the land even before the farms were established (3).

"In 1965 Mariannhill land was zoned according to the policies of Separate Development" (3), and the statutory basis for the expropriation was sealed in Proclamation No 127 of 1966, whereby the present Mariannhill II location was reserved for coloureds (5). The extent of the land involved is 770 hectares, of which approximately 500 ha is occupied by some 3 000 African people, and is known as Mariannhill II location (see Appendix 3). It is in this area that the study was conducted, and the methodology used was that of community diagnosis, to be reviewed briefly below.

2.3 COMMUNITY DIAGNOSIS

An appreciation of our methods of study (in Chapter 3) cannot be realised to the full without a brief review of the concept of community diagnosis. A minimum requirement for health care has been laid down by Savage as follows :

"Effective medicine is that which is deeply involved in combating the whole causative web of circumstances
- socio-economic as well as medical
- underlying morbidity and mortality" (6).

In the context of this quotation, the process of identifying the dynamics of the "causative web" or interplay of multiple factors of causation is an essential function of epidemiology. Consequently epidemiology is regarded as the most important scientific tool in the identification of health needs, demands and priorities in any community (7).

Where this process of identification includes community health needs and problems, demographic characteristics, community resources and their application to priorities, the process is known as community diagnosis, and it is the basis of this study (see Chapter 3).

Within the concept there is a spectrum of perspectives, depending on the extent to which the target community takes part in the "diagnosis". The most widely held view is based on the analogy of medical management (diagnosis, investigation, treatment and review) of the individual patient; and this is applied to the community (with different degrees of modification) (8,9,10,11). There is no unanimity on the suggested proviso that the "supremacy of the doctor must go" (8). Consequently in this perspective, the major part of the work is carried out by the health professionals, and the community plays a role that is more passive, in so far as it is not defined beyond the conceptual terms of "participation" or "involvement".

The opposite pole of the spectrum is the one where the community is guided and supported by expert health workers into organisational structures that plan, implement and evaluate the identification and mitigation of health problems (12). The authors of the latter approach have found it to be the best method of promoting effective and genuine community involvement.

There are overlaps and permutations of the above main approaches, together with an important development, namely, the growth of literary sources for use by front-line health workers (village health workers) in simple epidemiological studies (13,14).

The choice of approach, or 'mix' of epidemiological techniques within a specific approach will always be dictated by the circumstances of the study. In the present study we applied the well-known older method as will be described in the next chapter.

CHAPTER 3 STUDY METHODS

3.1 Objectives
3.2 Definition of Criteria
3.3 Selection of Sample and Data Collection
3.4 Collation of Data

The method of study was based in the technique of community diagnosis in the following manner.

3.1 THE OBJECTIVES were :

(a) To determine the population size and geographic limits of the area;

(b) To determine the demographic composition of the community;

(c) To identify the important causes of morbidity and mortality in the area;

(d) To identify existing health services and assess the usage thereof;

(e) To assess available community resources;

(f) To ascertain community opinion on health needs, and to incorporate this in establishing priorities for intervention; and

(g) To submit recommendations in respect of interventive programmes directed at priorities.

3.2 DEFINITION OF CRITERIA

(a) Semi-urban community : A community that has been settled for more than a century, under control of a church body, on an area adjacent to an urban industrial setting. Although there has not been strict control on building methods and road construction, the houses are scattered as in rural areas, but the life style of the community is similar to that in urban locations in many respects.

(b) Mariannhill II Location : The African location on the north-western outskirts of the Borough of Pinetown, and the components of which are locally known as "Mariannhill", "Impola" and "Tshelimnyama."

(c) Available health resources : This refers to all health services, including traditional practitioners (Inyanga or Isangoma), faith healers, clinics, general practitioners and hospitals.

3.3 SELECTION OF SAMPLE AND DATA COLLECTION

(a) A total of 329 households (nearly 100% of the population) were visited, but it was only in 287 of these that a responsible person could be found for interview. These visits were done on working days, and consequently in 42 households there was nobody to interview. As the headman had been consulted before the visits were embarked upon, most people knew about the study.

(b) A second round of visits was carried out on one in every five households to supplement information on morbidity, mortality, health service utilization and immunization status.

(c) A retrospective review of hospital outpatient case notes for sickness episodes dealt with by the local St Mary's Hospital was carried out, to cover a one-year period ending 31 January 1984.

(d) To eliminate observer bias, standard questionnaires and check lists were administered by fully-briefed and trained personnel (see Appendix 1).

(e) A control group was not considered necessary for this study.

3.4 COLLATION OF DATA

Data was collated onto purpose-designed collation sheets, and was analysed both manually and with the use of a pocket computer.

CHAPTER 4 FINDINGS : ORIGINS, GEOGRAPHY AND DEMOGRAPHY

4.1 Geographical Boundaries
4.2 Origins of Community
4.3 Demographic Characteristics

4.1 GEOGRAPHICAL BOUNDARIES

The Mariannhill No 2 Location is situated on the north-western outskirts of the Borough of Pinetown as shown on the sketch map (Fig 4.1). The boundaries are :

(a) The Umhlathuzana River on the east and south;

(b) Marian ridge location on the south and south-west; and

(c) The Dazzenhoek location (Kwazulu) on the west, north-west and north.

The extent of the area is estimated to be 500 hectares (see Chapter 2).

4.2 ORIGINS OF THE COMMUNITY

To gain more appreciation of the cultural values of the community an attempt was made to find out more about their origins. The people were asked about their previous home or residence before they settled in Mariannhill.

The replies were divided up into three groups as follows :

(a) Those where the oldest member or household head was born in the area, and the household has always been in the Mariannhill II area as far back as could be remembered;

(b) Those that have had to move away from their home within the urban Durban-Pinetown metropolis, mainly because of changes necessitated by the laws of the country or local authority; and

(c) Those that could remember that their parents or grandparents came from a rural area.

The results are shown in Table 4-1.

FIG 4.1

SKETCH MAP: MARIANNHILL MISSION, 1950

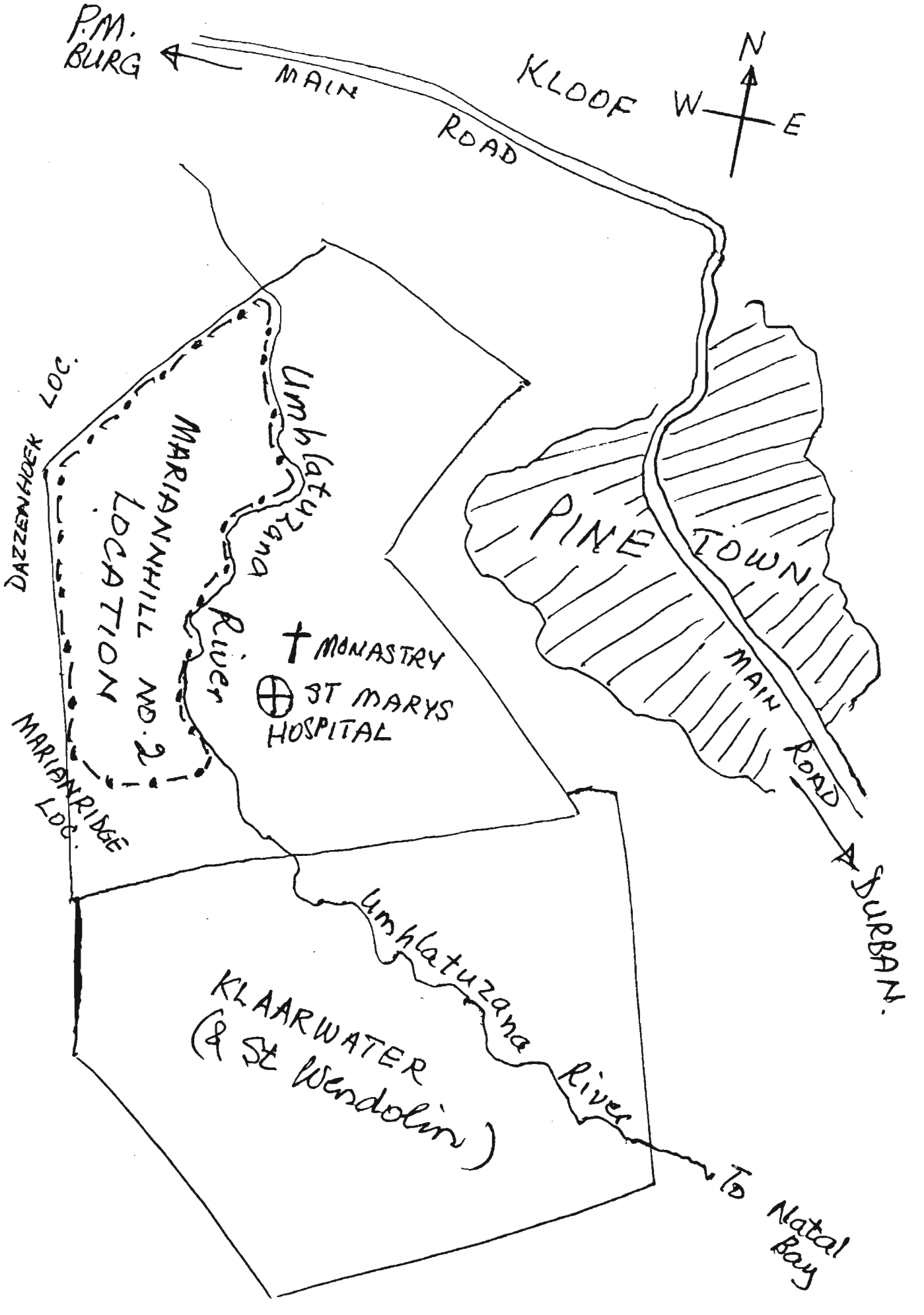


TABLE 4-1 ORIGINS OF POPULATION OF MARIANNHILL II LOCATION

Category	Number	Percent
Always been here	211	73.5
Ex urban	52	18.1
Ex rural	24	8.4
T o t a l	287	100.0

TABLE 4-2 ESTIMATION OF POPULATION SIZE IN MARIANNHILL II LOCATION

- Number of households interviewed	...	287
- Average number persons per household	...	9.3
- Households where "nobody was found"	...	42
- Households not visited (estimate)	...	5
- Estimated total households	...	334
- Estimated total population	...	3 116

TABLE 4-3 FREQUENCIES OF HOUSEHOLD SIZE IN MARIANNHILL II LOCATION

Persons per household	Number of households	Percentage
Up to 3	16	5.6
4 - 6	51	17.8
7 - 9	84	29.3
10 - 12	83	28.9
13 - 15	37	12.9
More than 15	16	5.6
T o t a l	287	100.0

TABLE 4-4 AGE-SEX PROPORTIONS OF POPULATION OF MARIANNHILL II LOCATION, 1984

Age	Males		Females		Total percent
	Number	Percent	Number	Percent	
0- 4	170	6.33	182	6.78	13.11
5- 9	188	7.00	148	5.51	12.51
10-14	182	6.78	173	6.44	13.21
15-19	181	6.74	165	6.14	12.88
20-24	147	5.47	186	6.92	12.40
25-29	130	4.84	97	3.61	8.45
30-34	99	3.69	95	3.54	7.22
35-39	59	2.20	71	2.64	4.84
40-44	47	1.75	63	2.35	4.10
45-49	36	1.34	38	1.41	2.76
50-54	33	1.23	29	1.08	2.31
55-59	23	0.86	22	0.82	1.68
60-64	16	0.60	35	1.30	1.90
65-69	9	0.34	17	0.63	0.97
70-74	10	0.37	14	0.52	0.89
75+	9	0.34	12	0.45	0.82
Total	1 339	49.87	1 347	50.13	100.00

4.3 DEMOGRAPHIC CHARACTERISTICS

(a) Population size : The population of Mariannhill II was estimated in the manner shown in Table 4-2. Our estimate of 3 116 persons have been born out by the official figure of 3 043 persons (18).

The average number of persons per household was 9.33, with a standard deviation of 3.93. The actual frequencies are shown in Table 4-3. The high figure of 9.33 persons per household is attributable to the extended family system, and is not surprising considering that the community has been settled there for more than a century. The official figure for the average family size is 6.8 persons, and does not in any way go against our average household size figure cited above (18).

The population of 3 116 persons on an area of 500 hectares gives a density of 6.23 persons per hectare. This density appears on inspection to be more favourable than in the surrounding areas where households are much more clattered together.

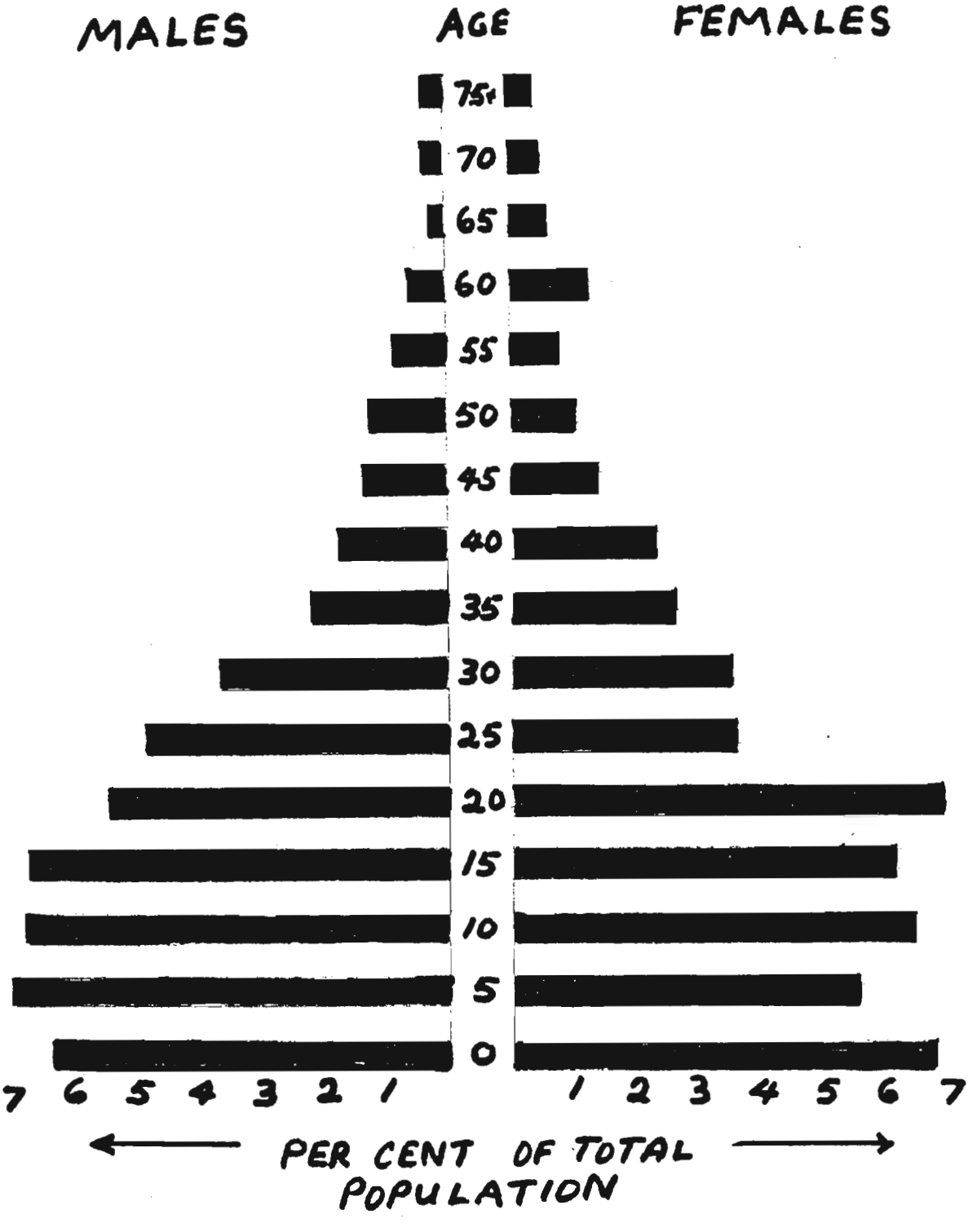
(b) Age-sex Structure : The population's sex ratio was virtually 1 : 1 with 1 339 males to 1 347 females (in the households that were visited and interviewed). This gives a ratio of 99.41 males per 100 females, or 100.60 females per 100 males.

The details of the age-sex structure of the Mariannhill II Location are clearly set out in Table 4-4. Like in many developing countries the population pyramid is broad-based, with 38.82% (nearly 40%) of persons under the age of 15 years (see Discussion later).

For a graphical view of the age-sex structure a 'population pyramid' has been drawn (see Fig 4.2).

(c) Dependency Ratio : The concept denotes the proportion of persons under the age of 15 years, plus persons that are 65 years and older, to the rest of the population. For countries in Africa the usual figure is from about 80 to 100 (19). In the case of Mariannhill II Location the figure is 70.865% (from data in Table 4-4). The implication is that for every 100 potentially economically active persons there are 71 'dependents'.

FIG 4.2 AGE-SEX STRUCTURE OF AFRICANS IN MARIANNHILL II LOCATION 1984



(d) Rate of population increase : There are three important factors that determine the rate of increase of any population, and these are : the crude birth rate, the crude death rate and population migration characteristics.

The number of live births over the 12-month period ending 31 January 1984 was 112 (hospital data). For an estimated population of 3 116 persons, the crude birth rate becomes 35.94 live births per 1 000 of population.

For reasons of official confidentiality the exact number of registered deaths for the area could not be procured from the authorities (the Commissioner's Office, Pinetown), as this information could not be made available to anyone without the written authority of the Director-General for Cooperation and Development, Pretoria. However, the Medical Officer of Health in Pinetown has lodged an application for access to the information contained in the registers of births and deaths. If permission is granted the information will be used to update our figures, particularly on deaths and age-specific death rates.

In the meantime we will rely on our household survey data which revealed that 33 persons (out of 2 686) had died over the year ending 31 December 1983. This gives us a crude death rate of 12.286 per 1 000 of population.

The rate of natural increase of the population would therefore amount to 23.7 per 1 000 of population per year.

The question of migratory characteristics of the population has already been touched upon (see Table 4-1). Photographic evidence has been said to suggest an unusual upsurge in the number of new buildings over the past 5 years. However we could not find any evidence whatsoever to collaborate this view as all new building structures that we enquired about were attributed to the extended family system. In fact the most sensitive complaint or community problem that we came across in the households was that people were not allowed to extend their houses or build new ones. In view of its sensitivity we deliberately did not pursue the matter to its limits (eg quantification of over-crowding).

(e) Fertility rate : The fertility rate is closely related to the birth rate, but offers a better index of the reproductive qualities of the population. Using hospital data (for live births) and data from Table 4-4 above the general fertility rate worked out to 135.1 live births per 1 000 women of age 15 - 49 years. Or, 142.6 live births per 1 000 women of age 15 - 44 years. Again this is subject to updating when official figures in the births register become available to us. In that instance one may also be able to compute age-specific fertility rates.

CHAPTER 5 SOCIO-ECONOMIC STATUS

5.1 Introduction
5.2 Income
5.3 Education
5.4 Housing
5.5 Other living conditions

5.1 INTRODUCTION

Socio-economic status is a composite term which, inter alia, includes "income, housing and living conditions, education, occupation and nutrition ..." (20).

For purposes of the present study the population was divided up into six "occupation groups," from infants and children that have not yet attended school ("preschool group"), to pensioners as set out in Table 5-1.

It is mainly in the context of this table (Table 5-1) that the main aspects of socio-economic status of the community are to be described.

5.2 INCOME

Probably the most important single component of one's socio-economic status is the income. It was not feasible to measure it by direct questioning in the present study as most of the bread-winners were not at home during the day. Consequently we had to content ourselves with the proportion of population that were gainfully employed (in Pinetown or elsewhere), as well as the proportion of households that were in possession of a television set.

From Table 5-1 above we can see that 28.2% of the population were employed, and about 22% were adults of working age who were neither schooling nor receiving any income. This group included housewives who could not work because of the lack of facility of a creche.

TABLE 5-1 OCCUPATION GROUPS IN MARIANNHILL II LOCATION, 1984

Group	Number	Percent
Preschool	430	16.0
School	824	30.7
Work in Pinetown	568	21.1
Work elsewhere	190	7.1
Unemployed	588	21.9
Pensioners	86	3.2
T o t a l	2 686	100.0

Concerning the presence of television sets in households, 17.4% had them. The usefulness of this indirect measure of economic status is difficult to assess as it is also related to educational status.

Perhaps a more important index of economic status is the proportion of the unemployed to the total of those that would be working if work was available to all. This proportion was 77.6% in our study (including all housewives).

5.3 EDUCATION

From Table 5-1 we see that 30.7% of the population were attending school (including University). This compares favourably with the 31.5% of the population that are aged 7 to 18 years. The more universally recognised index of adult literacy rate (16) could not be assessed within the time limits of the study. However, from the finding that virtually all school-age children were at school, it was evident that the general state of literacy was good, probably more than 70% for adults.

5.4 HOUSING

One of the major problems of the community is the legal restraint on the building of new housing units, and this will be discussed later. The overall consequence is that of overcrowding per room. It would have been very informative to assess the situation using objective criteria as laid down by law (21). Unfortunately this could not be done.

5.5 OTHER LIVING CONDITIONS

Like availability of water, this will be discussed later.

CHAPTER 6 MORBIDITY AND MORTALITY STUDIES

6.1 Morbidity studies
(a) Sex ratio
(b) Age structure
(c) First visits
(d) Disease profile
(e) Diarrhoeal disease
(f) Diarrhoeal disease and employment

6.2 Mortality studies
(a) Main causes of death
(b) Deaths and population origins

6.1 MORBIDITY STUDIES

Morbidity studies were conducted mainly at the local St Mary's Hospital, and the data was supplemented by that from the household survey. Sickness episodes for the year ending 31 January 1984 were studied from the hospital outpatient registers and cards. All in all there were 3 020 episodes, whose various characteristics will be examined below.

(a) Sex Ratio : There was a predominance of males in the hospital outpatient population. The extent of this predominance is shown by the sex ratio of 115.56 (say 116) males per 100 females, as compared with the sex ratio of 99.44 males per 100 females in the community, Table 6-1.

(b) Age Structure : The persons involved in sickness episodes, (including repeat visits), were divided up into six main age groups. To facilitate comparison the results have been put together with those of the community survey in Table 6-2.

The important differences in the age-structure of the two groups are clearly brought out graphically in Fig 6.1.

The differences in the distribution of the various age groups in the two populations are highly significant - (X^2 = 352.74, and degrees of freedom = 5). The main differences are due to the contrasts between the first and the third age groupings (see Fig 3).

TABLE 6-1 SEX RATIO : OUTPATIENT VISITS

Sex	Number	Ratio
Males	1 619	115.6
Females	1 401	100.0
Total	3 020	215.6

TABLE 6-2 COMPARISON OF THE COMMUNITY AND HOSPITAL POPULATIONS

Age Group (years)	Community Population		Hospital Population	
	Number	Percent	Number	Percent
< 1	131	4.9	325	10.8
1.1 - 6	340	12.7	414	13.7
6.1 - 18	847	31.5	615	20.3
18.1 - 45	1 090	40.6	1 352	44.8
45.1 - 60	178	6.6	187	6.2
60.1 +	98	3.7	127	4.2
Total	2 686	100.0	3 020	100.0

Chi squared = 352.74; df = 5; $p < 0.0001$

FIG 6.1 GRAPH OF COMMUNITY AND HOSPITAL POPULATIONS

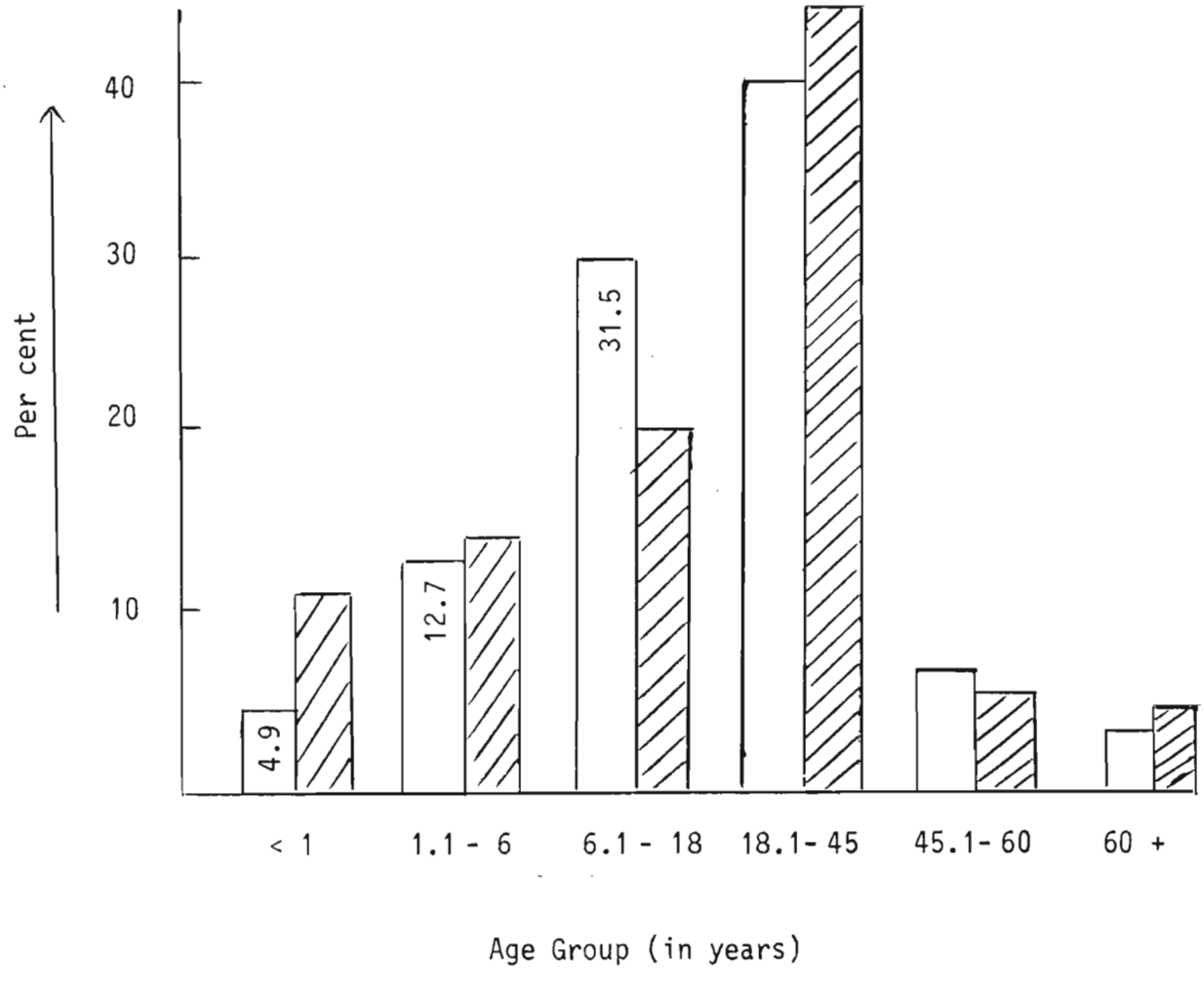


TABLE 6-3 SICKNESS EPISODES AS PER HOSPITAL NUMBER

	Number	Percent
For current month	1 764	58.4
For previous 3 months	501	16.6
For longer period	755	25.0
T o t a l	3 020	100.0

TABLE 6-4 FREQUENCY DISTRIBUTION OF SICKNESS EPISODES

Ailment Group	Number	Percent
1 Diarrhoea ± vomiting	276	9.1
2 Diarrhoea + other complaint	47	1.6
3 Respiratory tract ailment	368	12.2
4 Injuries, violence and accidents (eg MVA)	332	11.0
5 Other ailments	756	25.0
6 Follow-up treatment	710	23.5
7 No records (unknown)	186	6.1
8 Admitted to wards (no diagnosis)	348	11.5
T o t a l	3 020	100.0

TABLE 6-5 SOURCE OF HOUSEHOLD WATER AND OCCURRENCE OF DIARRHOEAL DISEASE

Household with source of water	River	Standpipe	Total
Diarrhoeal disease	17	15	32
No diarrhoeal disease	86	169	255
T o t a l	103	184	287

Chi squared = 4.65; Degrees of freedom = 1

$0.025 < p < 0.05$

TABLE 6-6 EMPLOYMENT RATE AND DIARRHOEAL DISEASE

	Number of persons employed	Number of persons not employed	Total
In households with diarrhoea	92	152	242
In households with no diarrhoea	641	1 116	1 757
Total persons	733	1 266	1 999

Chi squared = 0.22; Degress of freedom = 1

$0.5 < p < 0.7$

TABLE 6-7 MAIN CAUSES OF DEATHS, AS REPORTED IN HOUSEHOLD SURVEY

	Number	Percent
1 Physical violence and accidents	11	33.3
2 Asthma, stroke, cancer	7	21.2
3 Other	12	36.4
4 Unknown	3	9.1
Total	33	100.0

TABLE 6 8 DEATHS AND POPULATION ORIGINS

Household origins	Ex urban	Always been here	Ex rural	Total
With deaths	6	25	2	33
No deaths	46	186	22	254
Total	52	211	24	287

(c) First Visits : The above information would have been more valuable if first outpatient visits had been available from the hospital register. Unfortunately this was not the case, and the closest one could get was on the basis of whether the hospital number for the visit was given within one month; or within the previous three months or more than 4 months before the sickness episode. All the visits on a card marked "current month" were supposed to be new ailments for the month concerned, and the frequency distribution is shown in Table 6-3.

(d) Disease Profile : As it was not feasible to group the various ailments according to international norms, a much simpler classification was devised and the ailments (sickness episodes) grouped accordingly, as shown in Table 6-4.

The highlights of the disease profile are infections, trauma, follow-up treatments and hospital admissions. Due to the constraints of time it was not possible to find out the diagnoses, duration and outcome of hospitalization for the 11.52% of patients that were admitted.

The importance of physical injury and accidents will be clarified later in connection with mortalities.

(e) Diarrhoeal Disease : In the hospital outpatient study diarrhoeal disease constituted 10.70% of the sickness episodes. It is of interest to note that in the community study 32 of the 287 households visited (11.15%) reported the occurrence of diarrhoeal disease within the previous 6 months of interview. Predictably, the occurrence of diarrhoea and vomiting were significantly related to the source of water for the households, as shown in Table 6-5. It is therefore not surprising that in one household the head of the family was treated for cholera in the local hospital. More findings about availability of water will be described later.

(f) Diarrhoeal disease and employment : As socio-economic status is known to have important influence on the presence of various diseases, we decided to examine the employment rates in households with- and those without diarrhoeal disease, and the results are shown in Table 6-6. The employment rate (per working age adults) was slightly higher in

households with diarrhoeal disease (61.33% as against 57.44%), but the difference was not statistically significant, as shown in Table 6-6.

6.2 MORTALITY STUDIES

Findings on mortality as a determinant of demographic structure have been described above. In this section we will look into some epidemiological characteristics of the 33 deaths per 2 686 of population.

(a) Main causes of death : The most important single category of aetiological cause of deaths is that of physical violence and accidents as shown in Table 6-7.

(b) Deaths and population origins : Since a significant proportion of the deaths appeared (on the surface) to be due to behavioural malfunction, which in itself is an indicator of "social and mental pathology" (16), it was thought that this could be linked to deep-rooted cultural attitudes. In turn these could be influenced by "urban" and "rural" traditions of the population. The question to be answered was whether households with a confessed rural background had fewer deaths than the rest of the population. Unfortunately, as shown in Table 6-8, the numbers were too small to provide a satisfactory answer to that question. However, it is noteworthy that not one of the deaths due to physical violence and accidents were reported in households with a confessed rural background.

The question of where people turn to for help in the face of the above morbidity and mortality will be answered in the next chapter.

CHAPTER 7 HEALTH SERVICES AND RESOURCES

7.1 Available health services
7.2 Immunization status of children
7.3 Other resources
7.4 Antenatal care and deliveries

7.1 HEALTH SERVICES

(a) The major health facility for the Mariannhill II area is the local St Mary's Hospital, as it accounts for more than half of the 64 sickness episodes reported over the past six months by 57 households in the second round of the survey (see Table 7-1).

(b) Clinics : There are 4 main clinics that are utilized by the community of Mariannhill II area, and these are : the Dazzenhoek clinic (for people of Impola), the Kwadabeka clinic in the Clermont area, the Kwadabeka mobile clinic service (once weekly), and the municipal clinic in Pinetown. The frequency of usage of each of the above clinics was not determined.

(c) General Practitioners : The main general practitioners that are consulted by the community are in Pinetown, as they have the added advantage of being close to the major shopping centres.

(d) Traditional Doctors : There is relative paucity of useage for traditional doctors and faith healers, and this point will be discussed later.

(e) Home Care : Home care and remedies appear to be as important as visits to general practitioners, evidently the difference being the seriousness of the illness for which these are utilized.

7.2 OTHER RESOURCES

During the course of the study enquiries were made at the local primary school regarding its health services. It was found that the school had not been having any regular services as a result of changes in the school authorities. Consequently the researcher approached the Medical Officer of Health in Pinetown, and the

TABLE 7-1 AVAILABLE HEALTH RESOURCES AND UTILIZATION

Health Service	Sickness episodes	Percent
Hospital Outpatients	19	29.0
Hospital admission	17	25.8
Clinic	14	22.6
General practitioner	6	9.7
Home care	6	9.7
Traditional doctor	2	3.2
Faith healer	0	0.0
T o t a l	64	100.0

TABLE 7-2 IMMUNIZATION DOSE DISTRIBUTION AMONGST 97 CHILDREN UNDER AGE OF 6 YEARS

Vaccination	Number of doses	Percent
BCG	74	24.8
* Polio-DWT 1	70	23.4
Polio-DWT 2	64	21.4
Polio-DWT 3	58	19.4
Measles	33	11.0
Polio-DT 4	0	0.0
T o t a l	299	100.0

* DWT = diphtheria, whooping cough, tetanus
Number next to vaccine indicates dose

TABLE 7-3 IMMUNIZATION STATUS OF 97 CHILDREN UNDER AGE OF 6 YEARS

Status	Number	Percent
Full	58	59.8
Partial	21	21.6
Total	97	100.0

TABLE 7-4 FIRST ANTENATAL VISITS AND DELIVERIES FOR MARIANNHILL II 1983

Number of first antenatal visits	111
Number of deliveries	112
Percentage of women receiving antenatal care	99.10%

matter was given immediate attention, with (for example) nurses from the Pinetown Health Department giving immunizations to the children (against tuberculosis).

7.3 IMMUNIZATION STATUS OF CHILDREN

On the second round of the survey information about the immunization status of children under the age of 6 years was obtained from 43 households. The distribution of doses amongst the various vaccines is shown in Table 7-2.

The children were also examined for vaccination scars, and where possible, the records of their vaccination cards were also examined. A "proven" vaccination status was allotted to all children that had records of vaccination or vaccination scars, and this status could be "full" or "partial." Full vaccination status was accorded when a child had attended the child health clinic on at least three occasions within one to two years after birth, whether this was proven or not. The results are shown in Table 7-3. Of the fully immunized children only 33 were "proven," a discrepancy probably due to misplacement of the cards as the children get older.

From the above figures it can be concluded that in the Mariannhill II area about 60% of children are fully immunized, and 20% partially immunized. Almost all the immunizations were done by the local St Mary's Hospital.

7.4 ANTENATAL CARE AND DELIVERIES

The percentage of women that receive antenatal care is in essence the proportion of first antenatal contacts to the number of expected deliveries (16). In Mariannhill II location all women are known to go to hospital for deliveries. Therefore, if the assessment is correct, the number of hospital deliveries will represent nearly all the deliveries that can be expected from the area, and these are shown in Table 7-4, from which it is evident that the antenatal care needs of Mariannhill II are admirably fulfilled by the local St Mary's Hospital, at least for the year ending 31 January 1984.

CHAPTER 8 COMMUNITY OPINION ON PROBLEMS AND NEEDS

8.1 Clinic
8.2 Water
8.3 Transport
8.4 Creche
8.5 Housing
8.6 Other problems

To assess the opinion of the community on their needs and problems an open question was posed on the subject, and examples were provided if the interviewee requested it. Various needs and problems were cited and recorded.

The results are presented in a table (Table 8-1) in which each problem has been weighted by the number of times it was mentioned. This table will form the basis for a few comments in the needs and problems as perceived by the community.

8.1 CLINIC

The need for a clinic was the most frequently cited by the households, and this could in part be explained by the fact that the interviewers were known to be health workers, doing the survey for the health department of the Borough of Pinetown, "with a view to establishment of clinics if all goes well." This introduction was unfortunate but had to be done.

Opinions on the possible siting of the clinic, if successful, were also sought, and the response was influenced by the relative geographical situation of the interviewee. More than half of the people, however, pointed at a site that was close to one of the headmen of the area (Impola).

8.2 WATER

The availability of safe drinking water is one of the main problems of the area, and this problem has been made more acute by the recent epidemics of cholera in Natal and other parts of South Africa.

TABLE 8-1 COMMUNITY NEEDS AND PROBLEMS

Problem/need	No of times cited	Percent
1 Clinic	203	28.7
2 Water	202	28.6
3 Transport	158	22.3
4 Creche	46	6.5
5 Housing	39	5.5
6 "Don't know"	20	2.8
7 Shops	17	2.4
8 Hooligans	16	2.3
9 School	4	0.6
10 Water-borne sewerage	2	0.3
Total	707	100.0

TABLE 8-2 SOURCES OF WATER FOR HOUSEHOLDS

Source	Number of households	Percent
1 River	89	31.0
2 Standpipe	181	63.1
3 River + Standpipe	13	4.5
4 Other	4	1.4
Total	287	100.0

TABLE 8-3 COMMUNITY OPINION ON WHO CAN HELP THEM WITH PROBLEM OF WATER

Person/organization	Number of households	Percent
1 Mission (Church)	157	54.7
2 Headman	80	27.9
3 "Don't know"	32	11.1
4 Not applicable	18	6.3
T o t a l	287	100.0

Water from nearby streams is still an important source for the community, as only a minority (less than 10%) of households are within 500 metres of potable water from standpipes. The responses of households regarding their source of water are shown in Table 8-2.

Again here, people could have responded to our questions in accordance with what they thought we expected from them. All the same, important feelings were expressed by the community regarding the long distances from standpipes, the expenses involved in buying and transporting the water, and the difficulty of overcoming the problem as "the community is divided."

Regarding the question of whom the people thought would help them to overcome the water problem, only 6.27% of households did not see the question as applicable to them as they were close enough to the standpipes. The rest of the households responded as shown in Table 8-3.

The question of whom the people thought would help them with water was not thought to be potentially divisive to the community as it was common knowledge at the time of the survey that there was close cooperation between the community leaders and the Catholic Mission (22).

8.3 TRANSPORT

The inaccessibility of most of the area to public transport was associated with lack of suitable bridges over the Umhlatuzana river, and lack of suitable access roads within the area. A few respondents also associated this with "the uncertain future of the community in the area," (to be discussed later).

8.4 CRECHE

A strong desire for a creche and preschool facilities was expressed mostly by young mothers that were looking after children in the community. One of the arguments was that children made it difficult for them to take up employment.

8.5 HOUSING

Most of those interviewed appeared to be extremely cautious about airing their views to strangers in connection with the problem of housing. From what came out of the relatively few interviewees that did speak out, it became evident that their feelings were very strong against "the uncertainty of their future in the area." The extent to which this problem was seen as overriding will be discussed later.

8.6 OTHER PROBLEMS

The other problems listed in Table 8-1 were perceived as relatively unimportant by the community. However, it is noteworthy that almost 3% of the households were not in a position to share the problems and needs with us.

The desire for shops, butcheries, supermarkets and a water-borne sewerage system was expressed by only a few people.

CHAPTER 9 DISCUSSION AND PRIORITIES

9.1 Demographic characteristics
9.2 Significance of birth rates
9.3 Morbidity studies
9.4 Social and economic factors
9.5 Hypothesis formulation
9.6 Priorities

9.1 DEMOGRAPHIC STRUCTURE

The demographic characteristics of the Mariannhill II community are better off in many respects than many developing countries, as will be shown below.

(a) Sex ratio is balanced : The population pyramid of the area is shown in Fig 9-1. The sex ratio is well-balanced and lacks the 'left middle bulge' or preponderance of males of working age characteristic of Africans in the Durban metropolis in 1960. This latter represents the imbalances of male labour migration (23).

TABLE 9-1 DEPENDENCY RATIO IN VARIOUS COUNTRIES (PER 100 PERSONS)

Malawi 1966	92
Zambia 1968	95
Botswana 1971	106
Kenya 1969	116
Mariannhill II - SA	71

FIG 9-1 AGE-SEX STRUCTURE OF AFRICANS IN MARIANNHILL II LOCATION 1984

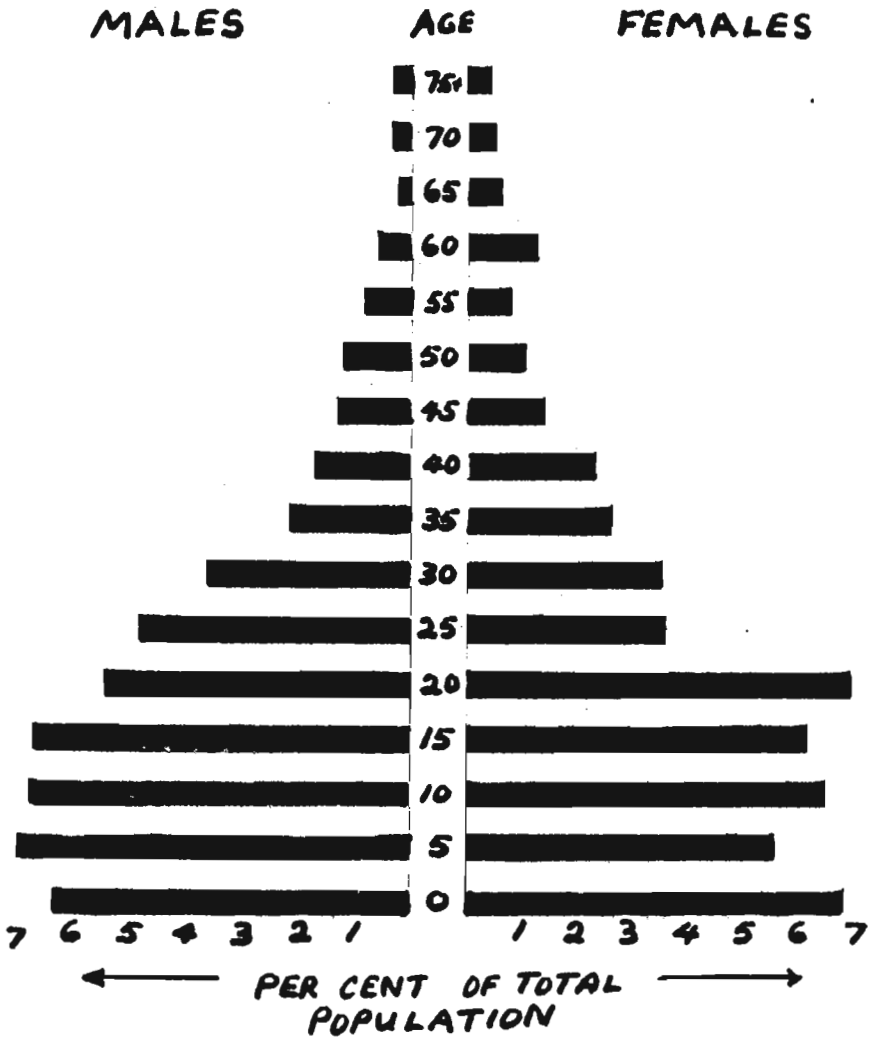


FIG 9-2 AGE-SEX STRUCTURE OF AFRICANS IN DURBAN METROPOLIS 1960
(Drawn from data in Ref 23)

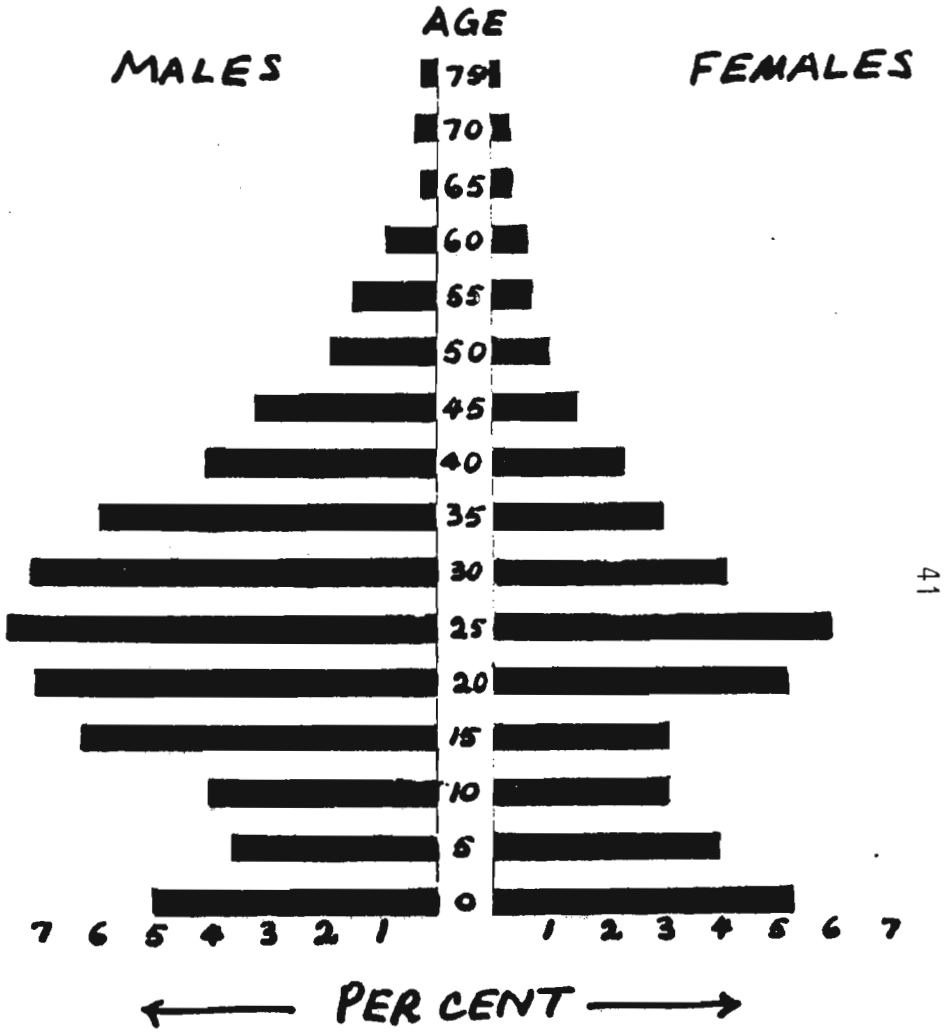


FIG 9-1 AGE-SEX STRUCTURE OF AFRICANS IN MARIANNHILL II LOCATION 1984

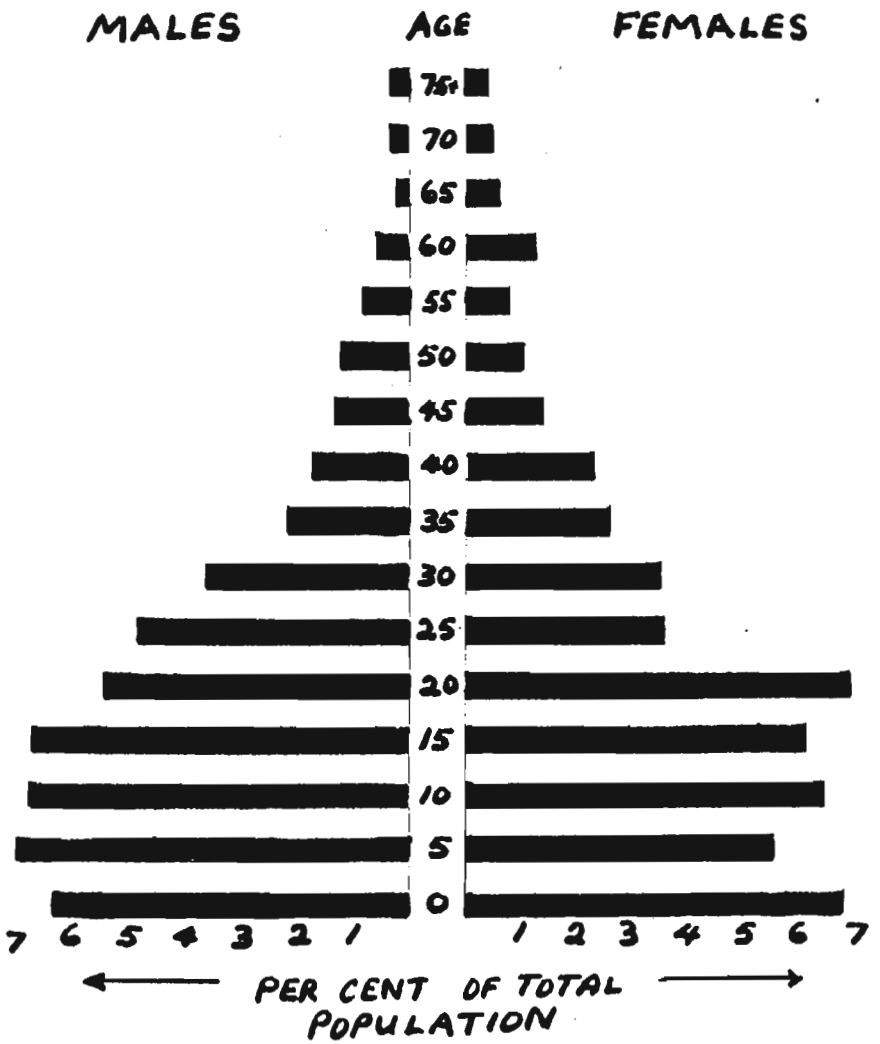
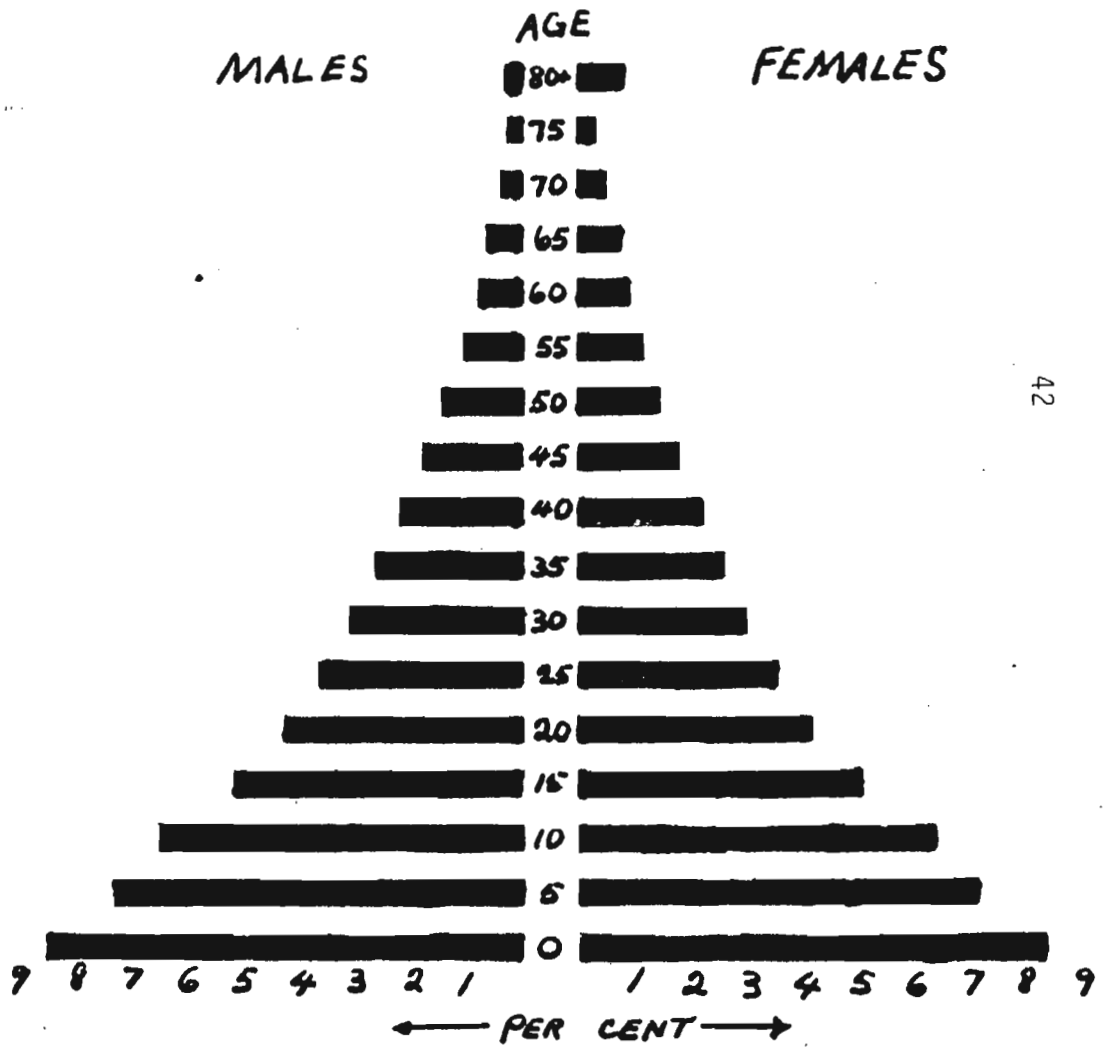


FIG 9-3 AGE-SEX STRUCTURE OF AFRICANS IN SOUTH AFRICA 1970 (Drawn from data in Ref 24)



(b) Predominance of children : Again it should be noted that the 'flatness' of the Mariannhill II population pyramid is less than that of the general (African) population of South Africa shown in Fig 9-3. (The table was drawn by the author from data provided by the Human Sciences Research Council) (24). This means that the proportion of children in Mariannhill II is probably much less than the average found in South Africa.

(c) Dependency ratio : The dependancy ratio, already defined above, is much smaller than in many developing countries (19), as shown in Table 9-1.

9.2 BIRTH RATES

The crude birth rate estimated at 35.9 live births per 1 000 of population is quite high, and is associated with a general fertility rate of 142.6 live births per 1 000 women of age 15 - 44 years. The latter is a more sensitive measure of reproductive behaviour, and for comparison we may note that the figure for the United States of America was 67.8 live births per 1 000 women aged 15 - 44 years in 1982 (25).

These figures are important for health needs of a community as high fertility rates are a symptom of under-development. We stress this point because there is a widespread belief that poverty and disease are an inevitable consequence of the rise in population numbers. The metaphors "population explosion", or "population time bomb" tend to dramatize the belief, and the overall effect is undue alarm and unfounded fear of the natural process of population increase (26,27). Deaths of children in South Africa have been reported to be blamed on communities who "simply continue to multiply uncontrollably" (28).

There is no scientific basis at all for the above belief (29). The most viable and cogent scientific hypothesis at present is that high fertility rates are a symptom of poor health in a community, and can be traced to various social and economic factors (29,30).

In fact it has been shown beyond doubt that social justice, particularly an equitable distribution of land and income automatically reduces birth rates, and improves the various other health indicators like infant mortality rates and life expectancy (31).

In the light of the above remarks there can be no justification for undue over-enthusiasm on contraception, particularly if it is at the expense of the other components of health care. Neither can there be justification for depriving communities of contraceptive facilities, for two reasons :

(a) The right of the individual person to decide on her reproductive freedoms should not be undermined; and

(b) Access to modern contraceptive technologies is an essential function of comprehensive maternal and child health, if such a component of health care is acceptable to the majority of the population of that specific community.

9.3 MORBIDITY STUDIES AND RESOURCES

(a) Diarrhoea and water : The statistically significant relationship between the occurrence of diarrhoea and the source of water for the household has been mentioned above, and cannot be over-emphasised in these days of cholera. In addition there is a known positive relationship between the quantity and quality of water on the one hand, and the nutrition of children on the other (32).

(b) Over-use of hospital : The use of urban hospitals as primary health care points is a well-known phenomenon in health care, and the King Edward VIII hospital in Durban provides a good example as about 60% of its medical outpatients could well be treated by a much smaller and more peripheral health care facility (33).

In this regard the local hospital serving Mariannhill II location is no exception, with 23.5% of patients being for simple follow-up treatments (dressings, long-term drug therapy etc), and only 11.5% of sickness episodes being admitted to the hospital wards.

The question that can be asked in the study is : To what extent is the local hospital fulfilling the primary curative health care needs of the Mariannhill II community ? With a population of 3 116 within one hour's travel to the hospital, one would expect about 6 000 sickness episodes from the community per annum (34). But we know that the sickness episodes dealt with by the hospital were only 3 020. Secondly we know that 55% of sickness episodes over a period of six months were handled by the hospital, and almost half of those were for admission to the wards. By all accounts it would appear, therefore, that the hospital handles only about half the sickness episodes from the Mariannhill II community. Households that were asked why they did not use the hospital more than they did complained of expense as one reason. Expense is inevitable in a private hospital, even where there is no profit motive.

Criticisms have been levelled against privatization of health care in general (35), and private hospitals in particular (36); the latter for both inappropriateness of care provided, and lack of comprehensiveness (36). In the main the criticisms are fully valid. However, it would be grossly unfair and inappropriate to view the local hospital in that light for two reasons :

(i) Because this is a mission hospital the profit motive can be ruled out immediately as it would be an antithesis of Christian sacrifice and selfless service.

(ii) The hospital has pioneered Western medical care in the area for close to 70 years now, with one medical superintendent having rendered continuous service for more than 30 years. In fact one of the matrons of this hospital sacrificed her life in the service of the patients. She died of typhoid (37).

Our report has already pointed out the excellent coverage for antenatal care rendered by this hospital, among other services.

(c) Why is hospital not suitable as primary health care centre ?

Apart from the remarks already made above, and besides the practical and axiomatic definition of primary health care (11), the hospital is rather too big and impersonal for patient satisfaction (38), and the big size of the health care institution has been incriminated with the tendency toward 'conveyor-belt' type of care (39). Perhaps an even more important reason is that of community participation, namely, the difficulty involved in subjecting the workings of a large institution to the control of the target population (10). Lastly, for effective primary prevention of disease, (notably immunization and health education), the hospital would not be suitable as it cannot be within the desirable "pram-pushing" distance from the households (39).

(d) Violence and accidents : It has been pointed out above that physical violence and accidents are an important cause of both morbidity and mortality, and this has been collaborated by the report that each of these claims 9 000 lives a year (40). In connection with violence, the hypothesis of "disruption of social morals by urbanization, plus economic difficulties and frustrations" (41), fits in with the discussion on 'economic development and health' in the following pages.

9.4 SOCIAL AND ECONOMIC FACTORS

"In many cases economic growth of certain sectors in the developing countries has been matched by a deterioration in the living conditions ... food production, and therefore in the health of the majority of the population" (42).

The extent to which the Western economic system in South Africa has been associated with under-development, poverty and disease has been ably researched (43).

The case for diseases of affluence can be argued on the same lines (44), but its pursuance would be inappropriate in a report on a disadvantaged community.

Social factors that are operative at all levels of physiological needs and environmental control are extremely important when one is locating the roots of ill-health in a community. The health of disadvantaged or "outcast" communities has been a subject of debate in various parts of the world (45), as well as in South Africa (46), and removals and resettlement of people has been mentioned specifically as one of the social consequences of government policy that are "responsible for much ill-health" (47). This brings us to the central problem of the people of Mariannhill II location, namely, the threat of removal.

The magnitude of forced removals, (or threat of removal) of communities from their long-established homes to other places so as to make way for other race groups, has been assessed through research country-wide (48). The policy as it applies to Mariannhill II location has already been explained above (5). This is one aspect of the land ownership policy of the country which has grave implications for the health of affected communities, and the extent of opposition to the policy, (ie community concern (49)), bears testimony to that (50, 51, 52, 53, 54).

The social system represented in the above remarks appears to go further than what the following quotation would suggest :

"The major obstacle to more just and efficient health care systems ... are not the usually cited ones of limited resources, poor communications, or lack of technological knowledge and data, but rather social systems that place a low value on the health care needs of the poor" (55).

The health needs of Blacks in urban areas of South Africa could be viewed in this context (46), and those of the Mariannhill II community are an example.

9.5 FORMULATION OF HYPOTHESIS

To conclude this discussion, a hypothesis can be formulated that the health needs and problems in Mariannhill II location emanate from the social policy of the country on land ownership, as manifest in the central problem of the area, namely the threat of removal. People under these circumstances cannot expect their area to be developed, as the quotation from a press article suggests :

"It is understood that development will not proceed until all Africans have been removed" (56).

All the problems of water, clinic, housing, communications and lack of other developmental activities can be traced to the above hypothesis.

Finally, doctors have been blamed for neglecting those in greatest need (57). However to blame doctors has been criticised before (58), and in terms of our hypothesis it is probably not fully justified.

9.6 PRIORITIES

Because of scarcity of resources, problems and needs cannot be rectified all at once. Therefore it is essential to sort them out in order of importance, and we call this process priority rating.

The method to be used here is that proposed by Morley, whereby one uses the four criteria of community concern, prevalence, seriousness and susceptibility to management (59). In terms of the methods the problems and needs have been rated in order of urgency as shown in Table 9-2.

TABLE 9-2 PRIORITY RATING OF HEALTH PROBLEMS IN MARIANNHILL II LOCATION

Health problem	Community concern	Point prevalence	Seriousness	Susceptibility to management	Total score
1 Housing	++++	++++	++++	+	64
2 Water	+++	+++	+++	++	54
3 Clinic	+++	++	++	++	24
4 Transport	+++	+++	++	+	18
5 Creche	+	+	++	++	4

Note : The total score equals the product of all the numbers of plus signs under each weighting component

CHAPTER 10 RECOMMENDATIONS AND CONCLUSION

10.1 The reprieve
10.2 Primary health care (including safe drinking water)
10.3 Transport and roads
10.4 Further studies
10.5 Continuity
10.6 Conclusion

Having quantified and crystallized the health needs of Mariannhill II into priorities, the stage is now set for recommendations and practical suggestions.

10.1 THE REPRIEVE

There is an urgent need for further representations to the authorities involved to reconsider their decision of reserving Mariannhill II location for Coloureds, as planning regarding all the other problems cannot be realized if there is uncertainty about the future of the Africans in the area. A precedent has already been created at St Wedolins and Klaarwater in granting the communities of those areas a reprieve (60), and this has already created a sense of positive expectation among the community of Mariannhill II area. In addition, the amount of psychosocial stress these people have suffered over the past 18 years can never be quantified by outsiders.

10.2 PRIMARY HEALTH CARE

When the author was asked to conduct the study in Mariannhill II, a major impetus was the desirability of primary health care coverage for the area. The World Health Organisation has recommended a minimum core of primary health care for any community, consisting of the following components :

(a) Information and education concerning health;

(b) Promotion of food availability and proper nutrition;

(c) Water and sanitation;

(d) Maternal and child health (including family planning);

(e) Prevention and control of endemic diseases;

(f) Treatment of common diseases and injuries;

(g) Provision of essential drugs; and

(h) Coverage by the referral system (16).

From the point of view of the Health Department of the Borough of Pinetown, the most important practical implication of the above list is the establishment of a clinic in the area.

For logistical reasons and accessibility to the greatest number of the inhabitants, the clinic could be sited at Impola near the main tarred road. This is also where more than half the population of the area would like the clinic to be. An emergency access road from the clinic westward would improve utilization of this important health facility.

Probably the most important aspect of the establishment of the clinic is to involve the community right from the planning stages, with a view to letting them exercise complete control as a long term goal. The rudiments of a suitable and democratic organizational framework for peoples participation in their own development could be laid down from the outset, with representatives answerable to the target community rather than to the authorities.

10.3 TRANSPORT

Good gravel access routes could be created initially, and the planning of permanent transport routes would then be considered together with water and sanitation arrangements.

10.4 FURTHER STUDIES

The following areas of further study could give a fuller picture of the community diagnosis :

(a) The use of the registers of births and deaths to update the findings of this study and throw more light on fertility rates and mortality rates as has already been suggested above (see Chapter 6).

(b) Determination of the nutritional status of children.

(c) A more comprehensive assessment of socio-economic status, perhaps using the method of Castle (20).

(d) Explanation of important aspects of the present study to the community or representatives of the community, as they are entitled to the results and state of progress toward attending to the problems (10).

(e) More involvement of the community in continuing assessment and evaluation of their health needs so as to encourage genuine effective community participation (12).

10.5 CONTINUITY

Two important disadvantages of a household survey are said to be the requirement of virtual complete coverage of households on the one hand, and lack of continuity on the other (16). The former has already been overcome in this study. To maintain continuity it is hoped that the Pinetown Health Department, the community of Mariannhill II, and the Mission Institute will make use of the information provided by this study and take the necessary steps as the occasion demands.

10.6 CONCLUSION

In this study the health needs of Mariannhill II location have been analysed in the context of "socio-economic deprivation and psychosocial stresses" associated with the threat of forced removal (61). It is argued that this is the crux of the matter, and the realization of all developmental activities in general, and primary health care programmes in particular, will hinge on it.

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2 We are grateful for the fruitful discussions we held with various individuals within the Catholic Mission of Mariannhill, particularly the Father Provincial and the Medical Superintendent of St Mary's Hospital, Dr Brouckaert.

3 The most important information in the study came from the community of Mariannhill II location (Impola, Tshelimnyama, Nabanye) themselves. We hope the findings of the study will help to advance their cause.

APPENDIX 1

STUDY PROTOCOL, QUESTIONNAIRE AND CHECK LISTS

THE HEALTH NEEDS AND PRIORITIES OF A SEMI-URBAN AFRICAN COMMUNITY

STRUCTURE OF THE RESEARCH PROJECT

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JULY 1984

THE HEALTH NEEDS AND PRIORITIES OF A SEMI-URBAN AFRICAN COMMUNITY

1. PROBLEM

Lack of information on the health needs and priorities of the African community residents in Mariannhill No. 2 Location.

2. OBJECTIVES

2.1 To determine the population size and geographic limits of the area

2.2 To determine the demographic composition of the community

2.3 To determine the socio-economic status of the community

2.4 To identify the important causes of morbidity and mortality in the area

2.5 To identify existing health services and assess the usage thereof

2.6 To assess available community resources

2.7 To ascertain community opinion on health needs, and to incorporate this in establishing priorities for intervention

2.8 To submit recommendations in respect of interventive programmes directed at health priorities

3. COLLECTION OF DATA

3.1 Definition of criteria

Semi-urban Community: A community that has been settled for more than a century, under control of a church body, on an area adjacent to an urban industrial setting. Although there has not been strict control on building methods and road construction the houses are scattered as in rural areas, but the life-style of the community is similar to that in urban locations in many respects.

Mariannhill No. 2 Location: The African location on the north-western outskirts of the Borough of Pinetown, and the components of which are locally known as "Mariannhill", "Mhlathuzane" and "Impola".

Available health resources: This refers to all health services, including traditional practitioners (Inyanga or Isangoma), faith healthers, clinics, general practitioners and hospitals.

3.2 Selection of Sample and Control Groups: The study will be done in two stages as follows:

(a) Demographic data will be obtained from a household survey which will be carried out in all households in the study area.

(b) Data in respect of morbidity, mortality and health service utilization will be obtained from a systematic sample of one in every five households in the study area.

(c) A control group will not be necessary for this study.

3.3 Methods of data collection

The study will be cross-sectional, and based upon household survey, and will consist of two components as follows:

(i) Household survey: All households in the area will be visited and in respect of each of these a responsible person will be interviewed. A questionnaire will be administered in order to establish household composition and current morbidity and mortality profiles (Annexure A).

To supplement information obtained from this main survey, further information will be ascertained in respect of the immunization status of children under the age of two years and in respect of patterns of usage of available health services.

Due to limitations of time the second phase of the household survey will be restricted to a 20% systematic sample as indicated in 3.2(b) above.

(ii) Hospital outpatients study: A retrospective review of case notes of out-patients that visited the local St. Mary's Hospital during the year ending 31 January 1984 will be carried out.

3.4 ELIMINATION OF VARIABLES

Standard questionnaires and checklists will be used, and these will be administered by fully-briefed and trained personnel so as to reduce interviewer bias.

3.5 TIME BARRIERS

Discussion of study protocol	2.7.84.
Finalization of questionnaires	3.7.84.
End of data collection	31.7.84.
Collation and analysis	30.8.84.
Submission of report	28.9.84.

... 3/

4. COLLATION OF DATA

Data will be collated onto purpose-designed collation sheets, and will be analysed both manually and by using a pocket computer.

5. EVALUATION OF THE INTERRELATIONSHIPS OF DATA

Interrelationships of data will be evaluated on completion of the collation, and for such evaluation basic statistical procedures will be used against the background of information obtained from literature review and other sources.

6. ADVANCEMENT OF HYPOTHESES

The important elements of the determination of health needs and priorities will be linked up in one or more hypotheses, in the context of health care problems of a developing community.

7. LITERATURE REVIEW

Appraisal of available literature and other sources of information will be done by the researcher on an ongoing basis, right up to the time of publication of findings.

8. PUBLICATION OF FINDINGS

The findings and report on the study will be submitted to the University of Natal, in a formation that is appropriate for a commentary, in partial fulfilment of the requirements for an M.Med. degree in Community Health.

HOUSEHOLD SURVEY

1. Household identiy : Owner _____

2. Number of persons, detailed as follows :-

	Sex	Age	Employ
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Code

Sex : Male = 1, Female = 2

Age : In completed years

Employment : Employed Pinetown = 1
Employed other = 2
Unemployed = 3
Still schooling = 4
Preschool = 5
Pensioner = 6

Name three important problems that face the community.

1

2

3

How many people are unemployed ? _____

3. Where were you immediately before you established yourselves in the household ?

Urban = 1	Always here = 2	Rural =3

4. What made you to choose this area ?

No choice = 1	Other = 2	Work = 3

If answer is 2 elaborate _____

_____

5. Do you pay any rent for the home ?

Yes = 1	No = 2

6. If answer is "Yes", to whom is the rent paid ?

Mission = 1	KwaZulu = 2	Other = 3

Environmental

7. Sanitation

Pit latrine = 1	Other = 2	W/B =3

(W/B = water-borne sewerage)

8. Where do you get drinking water ?

River = 1	Standpipe = 2	Other =3

9. What do you use as cooking fuel ?

Wood = 1	Paraffin = 2	Gas = 3	Electricity = 4

Morbidity/Mortality

10. Has any person in the household experienced diarrhoea or vomiting ?

Yes = 1	No = 2

11. Has any person died in the past year ?

Yes = 1	No = 2

If yes, elaborate (cause) _____

Economic

12. How many persons could be employed if work was available ? _____

13. How many people are in fact employed ? _____

14. Is there a television set in the household ?

Yes = 1	No = 2

Social

15. Whom do you think is the person or organisation that is likely to help the community with problems of water ? _____

_____

IMMUNIZATION STATUS : CHILDREN UNDER 6 YEARS

HOUSE-HOLD NO. ↓	CHILD	AGE IN MONTHS	BCG	POLIO-DWP 1 By 5/12	POLIO-DWT 2 By 7/12.	POLIO-DWT 3 By 9/12	MEASLES By 1year	POLIO-DT By 2yrs	STATUS	CARD-SCAR
			1=Given			1= Given	1=Given	1=Given	1=Full. 2=Partial 0=NIL	1=Seen 2=Reportedly present 3=Never was. (OR Unknown.)

MORBIDITY AND MORTALITY IN PAST 6 MONTHS

HOUSE-HOLD No. ↓	* PERSON	SEX	AGE (YRS)	CARE USED: HOME	TRAD. DOCTOR	FAITH HEALER	GP	CLINIC	HOSP. OPD	HOSP ADM.	OUT-COME
	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										

* DIAGNOSIS

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

APPENDIX 2

Pamphlet on Mariannhill II, received from Fr Damian (Father Provincial, Mariannhill)

M A R I A N N H I L L II

Between 1882 and 1885 Abbot Francis bought 3 major farms, namely Zeekoegat, Klaarwater and Stockville, from the Land Colonizathion Company, and later he consolidated them through acquisition of further pieces of land. Quite a number of black people lived already on that land and others were settled as they associated with Mariannhill chiefly through work and education Abbot Francis Pfanner gave these individual settlement Christian names e.g. Emaus, Nazareth, Bethlehem.

In 1965 Mariannhill land was zoned according to the policies of Separate Development. The now called Mariannhill II area was zoned for Coloureds and based on Proclamation 127 of 29 of the fourth month (April) of 1966, an area of 1 900 acres was expropriated by the Government (Department of Community Development) .

APPENDIX 3

Undated Daily News Article (? 1966)

Pinetown faces health dilemma

Daily News Reporter

GOVERNMENT race zoning plans are presenting Pinetown with a health services dilemma as it faces the task of providing for thousands of new non-White patients, with a limited budget and a shortage of staff.

The group areas jigsaw puzzle, which has seen the Mariannhill and Dassenhoek areas incorporated into the Pinetown borough while plans to remove the town's African population into homeland areas are still inconclusive, is causing increasing despair in top circles, it was learned today.

The incorporation of Mariannhill and Dassenhoek — to be developed largely for Coloureds and Indians in terms of Government policy — has helped swell the Pinetown population from about 25 000 to 60 000 in two years, about two years ago.

The extent of the responsibility which the borough faces was revealed today in an advertisement for the town's first fulltime medical officer of health. Part of his duties will be to "develop public health services" in the new Coloured townships.

LOOKED INTO

The matter is being looked into for the Pinetown municipality by the Town Clerk, Mr D. G. Tees, who with the Mayor, Mr Vernon Hall, was out of town today.

The question was discussed by the council recently.

Figures released by the Town Clerk shows that the ultimate population of Pinetown is expected to be about 210 000 (present 79 000) consisting of 60 000 Whites and 150 000 Coloureds and Indians in the still-to-be-developed areas which Pinetown will administer.

The present African population in the township is to be re-housed in homeland areas next to Pinetown.

Health services are the overall responsibility of the State Health Department and it is understood that the borough will be responsible for running out-clinics and other medical facilities in the new non-White areas, for which it will be able to claim re-imbursement from the central Government.

COVER

But the municipality will have to cover a wide area which has been extended by incorporation of the non-White zones to more than double.

Negotiations between the municipality and the State Health Department for funds and staff to cope with the new demands are believed to be at a delicate stage.

Another dilemma which the council will have to face, says a Pinetown businessman who did not want to be named, is that development of the Coloured areas is not keeping pace with promises made in Parliament.

The Minister of Community Development, Mr A. H. du Plessis, said in Parliament this year that development of four undeveloped Coloured group areas in Natal-including Mariannhill — would begin "in the near future."

But housing for Coloureds is reported to be critical.

It is understood development will not proceed until all Africans have been removed from the Coloured areas. No definite date has been set by the Government.

Tuberculosis, measles and malnutrition are among the main problems municipal health teams will expect to come up against.