IN THE NAME OF GOD

MOST GRACIOUS

MOST MERCIFUL

OUTPATIENT

CATCHMENT POPULATIONS

OF HOSPITALS AND CLINICS

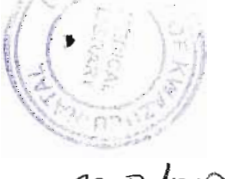
IN NATAL / KWAZULU

DR EBRAHIM DADA

OUTPATIENT CATCHMENT POPULATIONS OF HOSPITALS AND CLINICS IN NATAL / KWAZULU

DR EBRAHIM DADA

Submitted in partial fulfillment of
the requirements for the degree of
Master of Medicine (Community Health) (Part 2)



Department of Community Health
Faculty of Medicine
University of Natal
P.O.Box 17039
Congella 4013
Durban, South Africa

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F O R E W O R D

The following document has been presented as a dissertation, in partial fulfillment of a Master of Medicine degree in Community Health (Part Two).

The survey on the catchment population of all public sector health facilities in Natal/KwaZulu was coordinated by the Department of Community Health of the University of Natal Medical School, on behalf of the Health Services Liaison Committee of Natal/KwaZulu.

It is hoped that this dissertation will be of value to the Health Planning Sub-regional Committees or any person or organization who may be able to improve the relevance and quality of health care in Natal/KwaZulu.

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ABBREVIATIONS

(IN ALPHABETICAL ORDER)

CAT	Category refers to the health authority represented by the first letter as well as to the type of health facility represented by the second letter. The health authority may be NPA-DHS(P), DNHPD(S), DHW-KZ(K) or Local Authority (L). The health facility may be a hospital (H) or a clinic (C). For example, "PH" refers to an NPA-DHS hospital.
CBF	Cross boundary flow
DHW-KZ	Department of Health and Welfare, KwaZulu
DNHPD	Department of National Health and Population Development
DSB	Development and Services Board
HR/MD	"HR" refers to Health Planning Subregion. "MD" refers to Magisterial District. This is often represented by a number. For example, A61 refers to HPSR "A" and Magisterial District "61" which is Dundee.
HSLC	Health Services Liaison Committee
LA	Local Authorities
HPSR	Health planning sub-region
MD	Magisterial district
N/K	Natal/KwaZulu
NPA-DHS	Natal Provincial Hospital - Department of Hospital Services
PHC	Primary Health Care

SUMMARY

Catchment populations and cross-boundary flow characteristics of health facilities in Natal and KwaZulu have not previously been determined. As this information is essential to objective health service planning the present study was undertaken.

Utilization, cross-boundary flow and catchment populations were determined in 1986 for each hospital and clinic in Natal and KwaZulu.

All of the 61 hospitals and 178 clinics in Natal and KwaZulu which are operated by the public sector were included in the study.

The ratio of clinics-to-hospitals was 2.9 : 1. The overall average population per hospital and clinic was 106775 and 36591 respectively.

The size of the catchment populations of hospitals varied from 334972 to 272 and of clinics from 253159 to 877. Factors associated with these variations are discussed.

Inter-regional cross-boundary flow of patients varied appreciably. The greatest influx of patients was experienced by the Durban sub-region where the teaching hospital is situated while the greatest eflux of patients was experienced in the Port Shepstone sub-region.

Attendance rates per person per annum, according to racial group, were 0.9, 2.1, 1.7 and 0.8 respectively for Blacks, Coloureds, Indians and Whites.

Recommendations in respect of the distribution of health facilities and the routine collection and use of health information relevant to the management process are submitted.

INTRODUCTION

"... The people have a right to health care, and it is the responsibility of the Government to ensure that the right is enjoyed equally by all." [1]

This declaration was made in 1972 by the Ministers of Health of the American Nations in their "Ten-Year Health Plan for the Americas." The assembly was particularly cognizant of the grave problems of communities without, or with only token, medical services and affirmed its commitment to the less privileged groups.

This declaration of the Americas is overdue in South Africa including Natal/KwaZulu, in letter and spirit. Also overdue is our genuine recognition of the grave problem of communities without or with only token medical services -- a recognition that should inevitably lead to urgent interventive action as a top priority. Also overdue therefore is our commitment to the less privileged groups, in terms of their health status.

It is with this underlying concern that the present study on catchment populations of health facilities in Natal/KwaZulu has been considered.

Catchment population studies provide information on the utilization of existing health facilities and cross boundary flow of patients using these. It is an important evaluatory tool and is essential to the objective planning of health services in general and to the siting or relocating of health facilities in particular.

However, at present, catchment populations of hospitals and clinics in Natal and KwaZulu, as in other parts of South Africa, are unknown. The Natal/ KwaZulu Health Services Liaison Committee (HSLC), on which the various health authorities operative in that region have representation, requested the Department of Community Health of the University of Natal to design and coordinate research directed to determining the catchment populations of health facilities in these territories.

In this study the findings in respect of catchment populations of health facilities and the cross-boundary flow characteristics of patients attending those facilities have been presented for each hospital, clinic, HPSR and magisterial district.

The systematic and comprehensive determination of catchment populations of public sector hospitals and clinics has not before been undertaken in South Africa on a regional basis, and for this reason the present study in Natal and KwaZulu is historic.

OBJECTIVES

In respect of determining the catchment populations of hospitals and fixed clinics in Natal and KwaZulu the following objectives were defined :

1. To ascertain the populations of all magisterial districts.

2. To identify the various health authorities operative in the region.

3. To identify the health care facilities (hospitals and fixed clinics) under the jurisdiction of the various health authorities.

4. To ascertain the number and location of all hospitals and clinics according to HPSR and magisterial district.

5. To determine the catchment population of all identified health care facilities.

6. To ascertain the utilization of health care facilities according to race and area of residence.

7. To ascertain the utilization of health care facilities according to the source of referral.

8. To submit recommendations, in respect of health service planning, with reference to the Health Planning Sub-regions in Natal and KwaZulu.

DEFINITIONS OF CRITERIA

1 Catchment Population: The size of the population served by the facility irrespective of area of residence.

2 KwaZulu: The area proclaimed and established by the South African Government as the KwaZulu self-governing National State.

3 Natal: The remainder of territory of the original province of Natal, after the excision of areas proclaimed as KwaZulu.

4 Health Care Facility: Hospitals, fixed clinics and health centres.

5 Clinics: Fixed clinics, including health centres, but excluding mobile clinics.

6 Health Planning Sub-region: A geographically defined area by the Natal/KwaZulu Health Liaison Committee which constitutes an operational unit for the planning, co-ordination, delivery and management of health services.

REDUCTION OF BIAS

1 Sample: All hospitals and fixed clinics in Natal/KwaZulu were included in the study as were all outpatients who attended these during the study period.

No control group was selected for the purposes of this descriptive study.

2 Interviewing: Standard collation sheets (Annexure A) were utilized to collect data in respect of racial group, magisterial district of residence and source of referral of outpatients. Interviewers were briefed with regard to conducting the survey by senior personnel in the respective health care facilities.

METHOD

Objective 1 : Population data of all the Magisterial Districts in Natal and KwaZulu were obtained from the 1980 decennial National Census.

Objective 2 : Health Authorities operative in Natal/KwaZulu were identified by discussion with senior personnel in the Department of National Health and Population Development and the Department of Community Health.

Objectives 3 and 4 : The health care facilities for which the authorities identified above were responsible and their location were ascertained by consultation with personnel on the establishment of those authorities and by reference to various publications.

Objectives 5 to 8 : The survey was coordinated by the Department of Community Health which was responsible for the drawing up of the instruction and collation sheets in respect of each health care facility in Natal and KwaZulu, and for implementing the study.

In respect of each identified health facility, collation sheets were distributed to the appropriate health authority for implementation of the study. Guidelines in respect of conducting the study were enclosed with the collation sheets (Annexure B). Initially, the collation sheets were distributed to a number of local authorities who either did not have a clinic or who operated a mobile clinic service only. Those local authorities which did not provide any service relevant to this study were excluded.

Patients were interviewed either by Admission-clerks or by Nurses, depending upon local circumstances, and relevant data were recorded directly onto the collation sheets provided for this purpose.

In respect of the racial group, magisterial district of normal residence and source of referral of each attender, a tick for each of these was placed in the appropriate column on the collation sheet. The study was conducted over a period of one week.

The completed collation sheets from the various health facilities were sent to the appropriate authority and then submitted to the Department of Community Health.

Collected data were assessed for completeness and, where necessary, appropriate steps were taken to confirm data entries in order to achieve higher levels of completeness.

The data were entered into a micro-computer for collation and calculation of catchment populations.

The data were analyzed both manually and by microcomputer. Standard procedures were used in the presentation of the data.

LIMITATIONS OF THE STUDY

Completeness of Data : Although all hospitals and fixed clinics in Natal/KwaZulu were initially included in the study, some clinics in KwaZulu have been excluded as no survey results were received from them. The non-participating clinics included six from the Ezakheni Ward which is without a parent hospital. St Francis Hospital in KwaZulu was without a superintendent at the time of the survey and did not take part in the survey.

The exclusion of mobile clinics, which provide an infrequent, mainly preventive service, precludes the collection of important utilization data. However, as the present study was directed to fixed facilities their exclusion is considered acceptable.

Time of Data Collection : The survey was conducted over a one week period (18 to 24 November 1985) for the majority of the health facilities. For a variety of reasons adherence to the period was not possible in all cases. Lack of a uniform time period is a potential source of bias. However only seventeen (17) out of a total of two hundred and thirty nine (239) health facilities, comprising 7.1% of the total, conducted the survey outside of the scheduled period.

Furthermore, conducting the survey over a period of only one week may introduce seasonal or other time-related biases. It is unlikely, however, that catchment population estimates would be influenced by this, unless season influenced utilization characteristics non-uniformly.

Briefing : Three questions were directed to each interviewee, namely race, place of residence and source of referral. It is likely that the limited number of data items collected will have reduced both interviewer and interviewee bias. However, a few problems have emerged in the briefing process.

Instructions were transmitted via the Natal/KwaZulu Health Services Liaison Committee to the various health authorities operating in Natal/KwaZulu who directed these to the heads of each health facility. Instructions were then directed, in most cases to the person in charge of the Outpatients Departments in the case of hospitals, and finally to the clerks or nurses who clinically collected the data.

It is possible that in the successive transmission of instructions, the quality of briefing deteriorated and in some instances may have been inadequate. This was reflected in the errors made by those filling in the forms. The two types of errors commonly encountered were either omitting or duplicating any one of the items of information for each patient. These errors were discovered in 2909 patients (2.7%) of a total of 130644 patients interviewed in the case of the source of referral; in 172 patients (0.1%) in the case of the racial group; and in 858 patients (0.7%) in the case of district of residence.

Veracity of Data Recorded : The possibility of patients supplying incorrect information cannot be excluded. Many patients may have given addresses of their relatives with whom they were residing during the period of treatment. It is not considered likely however that this would constitute a major limitation in this survey as this was only likely to occur significantly in respect of the tertiary hospitals.

Perceived Relevance : Incorrect data may be recorded when inadequate explanation concerning why the study is being undertaken is given. In such cases data may be manipulated by the seekers to give a better impression of their performance. However, in the present study, no evidence to suggest such practices have been identified.

Furthermore, when data collected is not seen as immediately relevant to the health care delivery system or when there is inadequate training of health centre staff in respect of simple data analysis and interpretation, then errors and incorrect data collection are likely to occur.[2]

Exclusions : Of the total number of patients interviewed, 1785 (1.3%) were from outside Natal/KwaZulu. The majority of these came from Transkei (1170), comprising 0.9% of the total. These were excluded from the survey and not taken into account in the calculation of the catchment populations of the various health facilities.

Identification of Areas of Residence : Lack of knowledge by patients or the persons completing the collation sheet of the magisterial districts in which the place of residence was situated was also encountered. In some cases the places of residence given were not located and consequently were regarded in the study as "undetermined". Such cases however comprised only a small percentage (0.7%) of the total number of responses.

RESULTS

POPULATION OF MAGISTERIAL DISTRICTS IN NATAL AND KWAZULU

Magisterial districts in Natal and KwaZulu were identified by reference to appropriate maps obtained from the Department of Health and Welfare of KwaZulu and elsewhere. In respect of each magisterial district its situation was established with regard to territory (Natal or KwaZulu) and HPSR as at March 1987. In Natal there are 41 magisterial districts and in KwaZulu 26 magisterial districts.

Of the total population of 6513270 in the region, 3376930 (51.8%) reside in KwaZulu and 3136340 (48.2%) reside in Natal.

The total population for each magisterial district is shown in Tables 1a and 1b.

IDENTIFICATION OF HEALTH AUTHORITIES

Health Authorities : The following health authorities operating in Natal and KwaZulu were identified and are listed in Table 2.

Since the advent of the Republic of South Africa Constitution Act (No 110 of 1983) the functions of DNHPD have been divided amongst the following authorities :

(a) The Department of Health and Welfare, House of Delegates
(b) The Department of Health and Welfare, House of Representatives
(c) The Department of Health and Welfare, House of Assembly
(d) DNHPD (General Affairs)

However for the purposes of this study only the original authorities indicated in Table 2 were considered.

IDENTIFICATION OF HEALTH CARE FACILITIES

The total number of authority-administered or subsidized hospitals in Natal and KwaZulu is 61. Of these 32 (52.5%), 24 (39.3%) and 5 (8.2%) are under the jurisdiction of DHS, DHW(KZ) and DNHPD respectively.

In addition, of 178 clinics in the region, 118 (66.3%) are administered by DHW (KZ), 48 (26.9%) by Local Authorities, 6 (3.4%) by DHS and 6 (3.4%) by DNHPD.

The clinic to hospital ratio in KwaZulu is 4.9 : 1 and in Natal is 1.6 : 1.

NUMBER AND LOCATION OF HOSPITALS AND CLINICS ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

The identity of each hospital and clinic according to the HPSR and magisterial district in which it is located is indicated in Tables 3 to 10.

The HPSR with the greatest number of hospitals is HPSR F which has 14 and those with the smallest number of hospitals is HPSR A, B and D which have 4 hospitals each.

Clinics are greatest in number in HPSR F which has 56 and fewest in number in HPSR D which has 7.

In the event of some clinics not being reflected, this is due to the non-disclosure by the "parent" hospital of the existence of that clinic.

CATCHMENT POPULATION OF HEALTH CARE FACILITIES

The contribution of the various authorities to outpatient care for the region as a whole is shown in Table 11. DHW(KZ) accounted for 38.5%, DHS for 33.8%, Local Authorities for 18.2% and DNHPD for 9.5% of outpatient attendances during the study period.

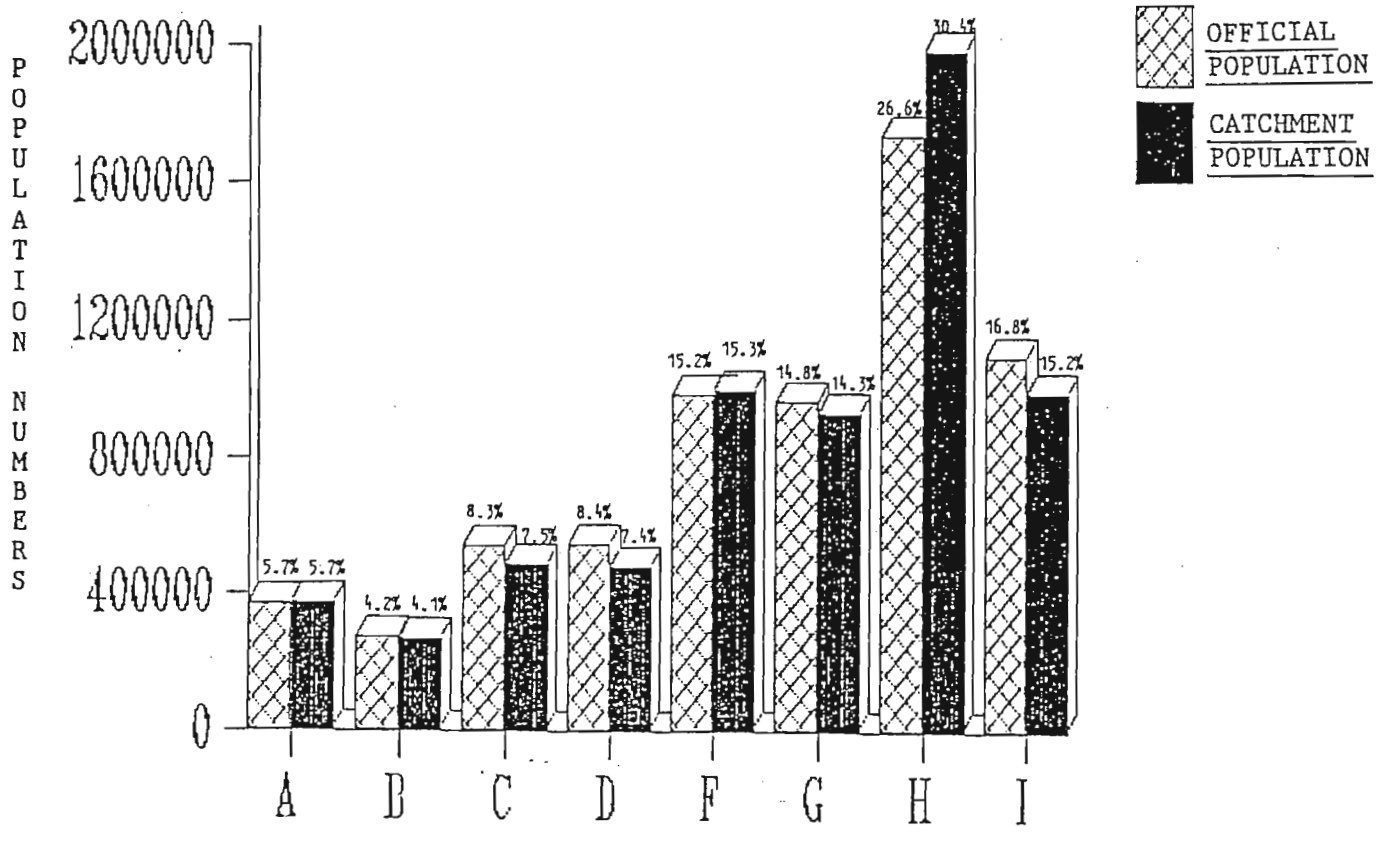
The outpatient catchment population for each health facility (hospitals and clinics) is shown in Tables 12 to 19. Table 20 shows the catchment population of the Health Wards in KwaZulu, in addition to the catchment population of each hospital and clinic. KwaZulu is evolving a network of Health Wards, whereby a defined geographical entity is served by peripheral satellite clinics that drain problem cases to a centralized parent hospital.

Overall, hospitals accounted for 47.3% and clinics for 52.7% of outpatients. When Natal and KwaZulu are considered separately hospitals accounted for 60.7% and 25.8% of the total catchment population of Natal and KwaZulu respectively. Clinics accounted for 39.3% and 74.2% of the catchment population in Natal and KwaZulu respectively.

The catchment populations are compared with the official population of each HPSR. The net influx or eflux of patients according to HPSR is indicated in Figure 1.

FIGURE 1

CATCHMENT POPULATIONS AND OFFICIAL POPULATIONS ACCORDING TO HPSRs



NB: The population numbers of each HPSR are also expressed as a percentage of the total population of Natal/KwaZulu.

USE OF HEALTH CARE FACILITIES
ACCORDING TO MAGISTERIAL DISTRICTS

Please refer to Tables 21 to 28.

EXPLANATION OF TABLES 21 TO 28 :

Tables 21 to 28 identify the catchment populations of all health facilities in Natal/KwaZulu, according to magisterial districts within their own HPSRs.

1 "CAT" : Category refers to the health authority denoted by the first letter, as well as to the type of facility denoted by the second letter. The authorities may be Natal Provincial Administration (P), DNHPD (S), KwaZulu (K) or Local Authorities (L). The type of health facility may be either a hospital (H) or a clinic (C). For example, "PH" refers to a Provincial Hospital.

2 "HR/MD" : This refers to the HPSR ("HR") as well as to the Magisterial District ("MD"). The HPSR's are indicated by their letters A to I, excluding E. The magisterial districts are denoted by the numbers assigned to them. For example, A61 refers to HPSR "A" and magisterial district 61 which is Dundee.

3 The letter and number found beneath each magisterial district refers:

(a) The letters, "K" or "N" indicates the territory in which the magisterial district lies, namely, KwaZulu ("K") or Natal ("N").

(b) The number is assigned to that particular magisterial district and is often used in this study and elsewhere to represent that magisterial district. For example, K8, placed under Madadeni, in table 21, indicates the magisterial district of Madadeni, which is also represented by the number 8, located in KwaZulu (K).

COMMENTS :

The bulk of the catchment population of a vast majority of the health facilities are from the magisterial districts in which the health facility is located. This is a positive finding. For example, in Table 21, 89% of the catchment population of the Newcastle Provincial Hospital comes from the magisterial district of Newcastle (N62) in which it is situated.

However, out of a total of 239 health facilities investigated in this survey, 45 captured less than 50% of their catchment population from their own magisterial district, comprising 18.8% of the total health facilities. Further investigations are necessary to ascertain what proportion of these have true cross boundary flow or an apparent one.

USE OF HEALTH CARE FACILITIES ACCORDING TO HPSRs

Please refer to Tables 29 to 37.

EXPLANATION OF TABLES 29 TO 37 :

Tables 29 to 36 list health facilities according to their HPSR's. The total catchment population of each health facility is indicated. The proportion of each HPSR that contributes to the catchment population of that health facility is also indicated.

Table 37 is a summary and analysis of some of the data contained in tables 29 to 36. It highlights the sub-regional variations.

Category (CAT): This code indicates the health authority in charge of the health facility as well as the type of health facility i.e. hospital or clinic.

KH = KwaZulu Hospital
KC = KwaZulu Clinic
PH = Natal Provincial Hospital (NPA)
PC = Natal Provincial Clinic (NPA)
SH = Department National Health and Population Development Hospital
SC = Department of National Health and Population Development Clinic
LC = Local Authority Clinic

HPSR and Magisterial District (HR/MD): indicates the Health Planning Sub-Region and Magisterial District in which the health facility is situated. For example A61 is in HPSR A in the magisterial district of Dundee (i.e., magisterial district number 61 in Table 29).

Columns: In explaining the content of Tables 29 to 36, the topmost row containing numbers in table 29 is used. Please refer to this.

Column 1: An arbitrary Row number.

Column 2: The health facility is "Dundee".

Column 3: This is a Natal Provincial Administration Hospital (PH).

Column 4: It is situated in A61 i.e. Health Planning Sub-Region A in the Magisterial District of Dundee (61).

Columns 5-12: The total catchment population is derived from columns 5 to 12 inclusive, (i.e., 27336 from HPSR A, 1091 from HPSR B, 14167 from HPSR D, 144 from HPSR G, and 29 from HPSR H.)

Column 13: The total catchment population of Dundee Provincial Hospital is 42767.

In column 5, which deals with HPSR A, the number of users of Dundee Hospital who are resident in HPSR A is 27336 and of users of Newcastle Hospital is 17320, etc.

It will be seen that the total number of users of facilities situated in HPSR A by residents of HPSR A is 352759. (This is not the total usage of HPSR A residents as usage by them of facilities outside HPSR A is not included.)

The total population of each HPSR is shown at the foot of each column.

COMMENTS

The overall number of clinics per hospital in Natal/KwaZulu is 2.9. However, a study of the clinic-per-hospital ratio region by region, shows a marked variation. In region F there are 4.0 clinics-per-hospital, whereas Regions D and A have the worst clinics-per-hospital ratio of 1.8 : 1 and 2.0 : 1 respectively. The remaining five HPSRs show an intermediate picture. (Table 37)

The overall population-per-clinic in Natal/KwaZulu is 36591. This also shows marked variations according to the different HPSRs. The worst region in this respect is HPSR D which has 78026 people served by each clinic. Regions G, H, I and A also show an unfavourable population-per-clinic ratio, ranging from 53591 population/clinic to 46285 population/clinic. Region F appears to be well served in terms of the number of clinics (17626 population/clinic). Regions B and C also show reasonably good population per clinic ratios - 27460 population/clinic and 25856 population/clinic respectively. (Table 37)

An identical pattern reveals itself as far as the population/hospital ratios are examined. The average population/hospital ratio ranges from 156320 in region I to 68660 in region B. (Table 37)

CROSS BOUNDARY OF PATIENTS ACCORDING TO HPSRs

The extent of cross boundary flow of patients in Natal/KwaZulu according to HPSRs is examined.

Please refer to Tables 38 and 39 and Figure 2.

EXPLANATION OF TABLE 38 :

Table 38 identifies the Catchment Population and Cross Boundary according to Health Planning Sub-Regions.

1. Columns (vertical): Column 1 identifies the Health Planning Sub-Region (HPSR) while columns 2 to 9 indicate the way in which residents of a particular HPSR use facilities throughout the territory. For example, Column 2 indicates the way in which residents of HPSR A use health facilities in the different HPSRs.

   Therefore in respect of residents of HPSR A:

   352759 (95.3%) are users of health facilities situated in HPSR A.
   3138 (0.8%) are users of health facilities situated in HPSR B.
   1072 (0.3%) are users of health facilities situated in HPSR C.
   6470 (1.7%) are users of health facilities situated in HPSR D.
   1265 (0.3%) are users of health facilities situated in HPSR F.
   1319 (0.4%) are users of health facilities situated in HPSR G.
   4257 (1.1%) are users of health facilities situated in HPSR H.
   0 (0.0%) are users of health facilities situated in HPSR I.
   370280 (100%) is the total population of HPSR A.

2. Rows (horizontal): These indicate the origin of users of facilities in the various HPSRs. For example, the topmost row containing numbers indicates the origin of users of facilities situated in HPSR A:

352759 (94.5%) live in HPSR A.
3074 (0.8%) live in HPSR B.
527 (0.1%) live in HPSR C.
15219 (4.1%) live in HPSR D.
218 (0.1%) live in HPSR F.
229 (0.1%) live in HPSR G.
928 (0.2%) live in HPSR H.
361 (0.1%) live in HPSR I.
373315 (100%) is the total catchment population of health facilities in HPSR A.

Each row indicates the origin of users of facilities situated in a particular HPSR.

3. Individual cells: In square HH 97.4% of the residents of HPSR H use the facilities situated in HPSR H. In other words, it indicates the proportion of its people offered facilities in its own region.

Alternatively 85.2% of users of all facilities in HPSR H are resident in that HPSR. In other words, it indicates the proportion of its health facilities used by its own residents.

4. Summary: This table gives an overall clear indication as to where the people are coming from and going to in respect of each HPSR.

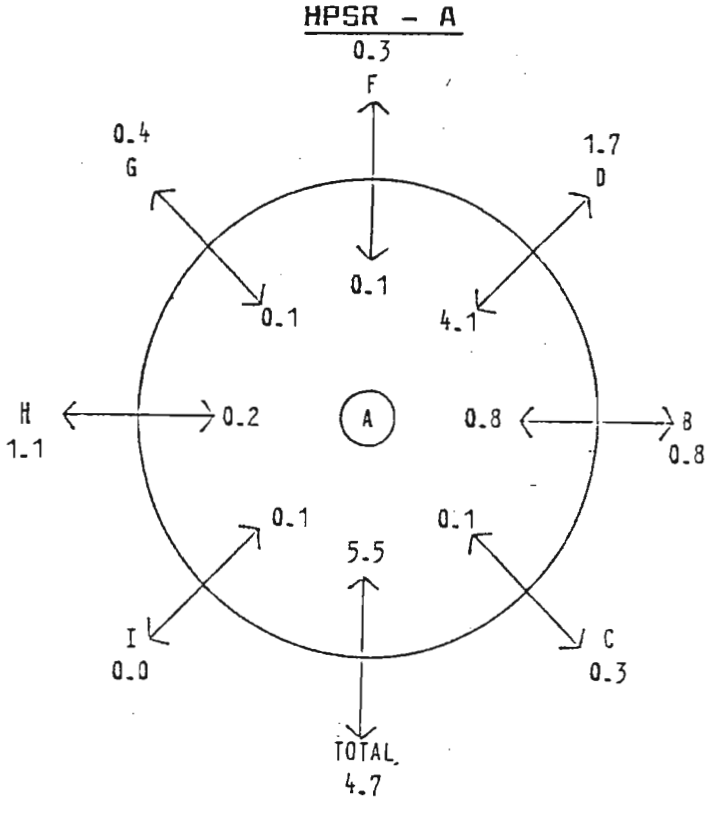
Net cross-boundary flow of attenders, between HPSR of residence and that in which health care was obtained is shown for each HPSR in Table 39 and Fig 2.

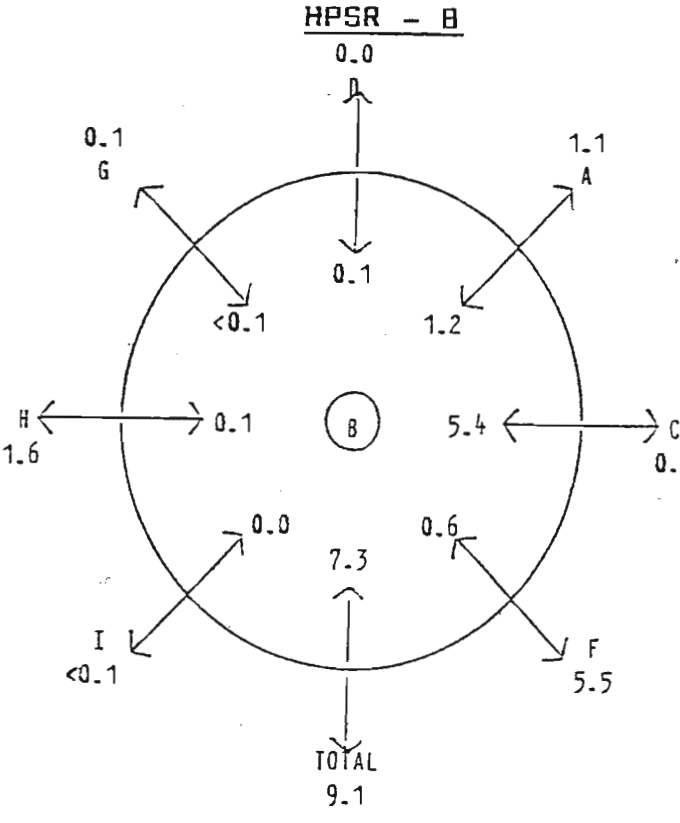
FIGURE 2

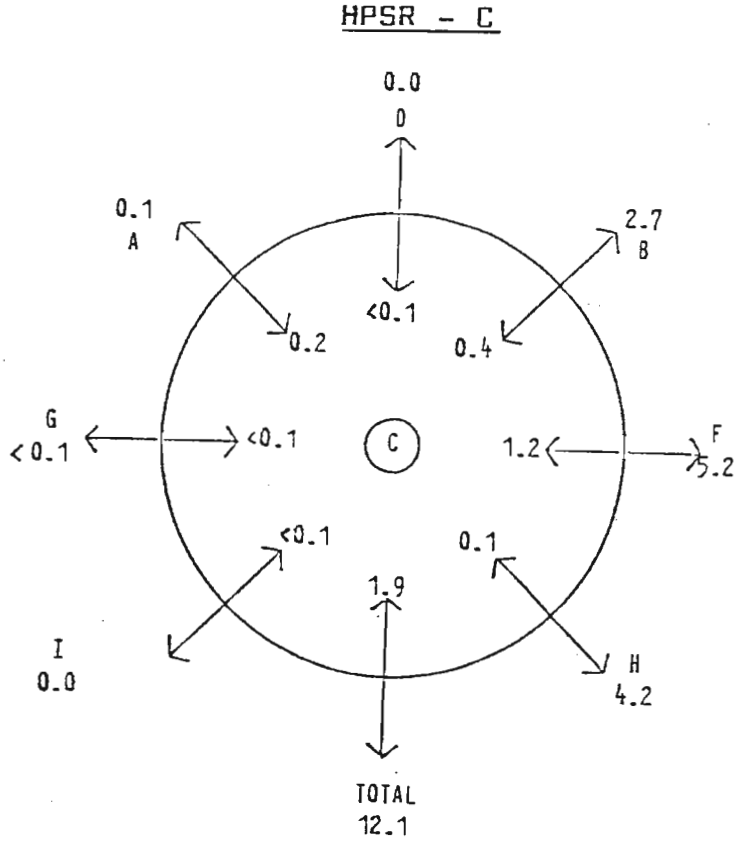
CROSS BOUNDARY FLOW OF PATIENTS

IN EACH HEALTH PLANNING SUB-REGION

(These diagrams are further explained in conjunction with table 39 on page 107)







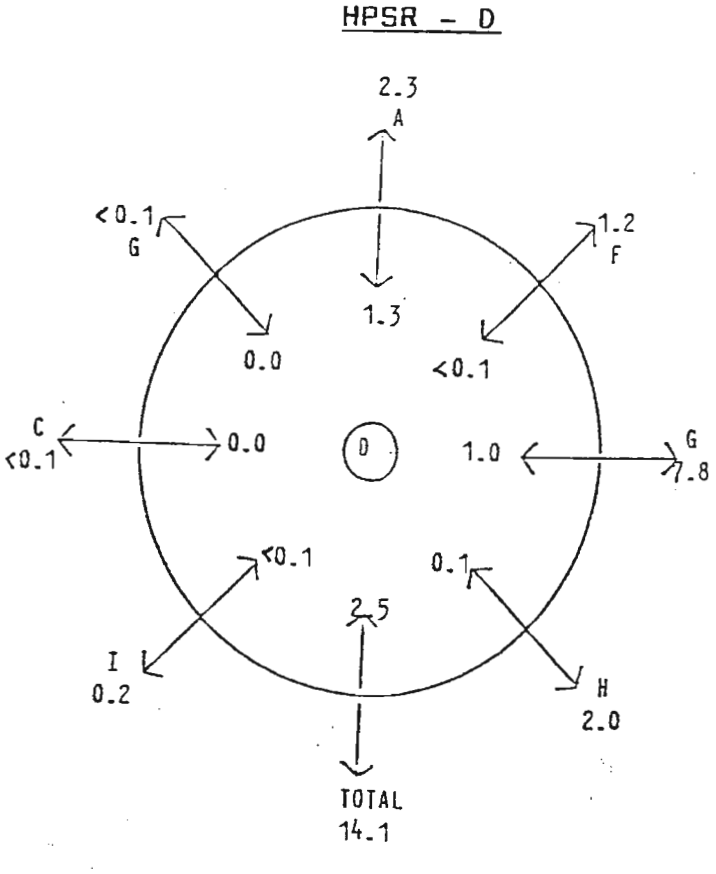
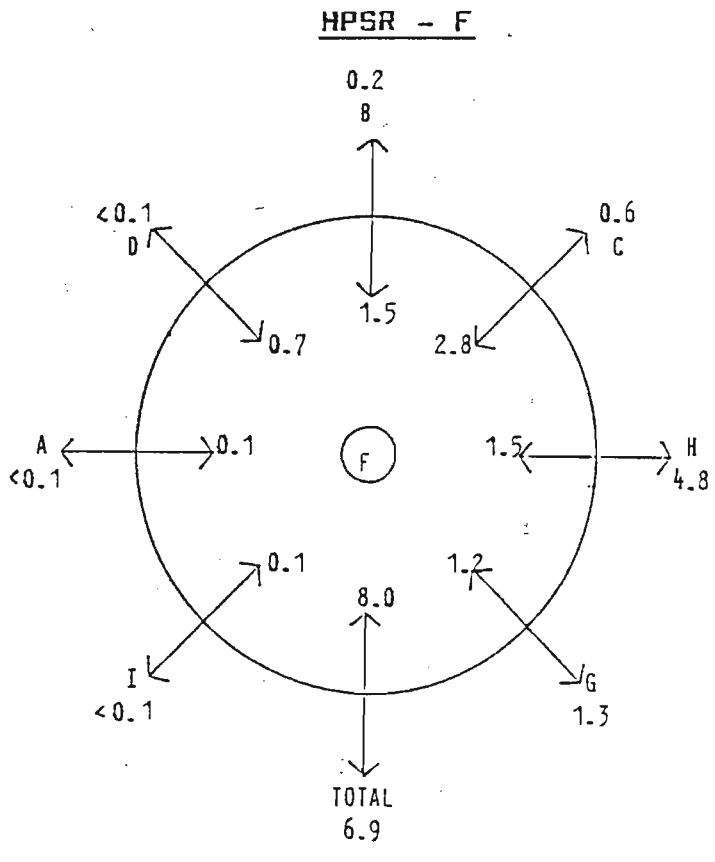
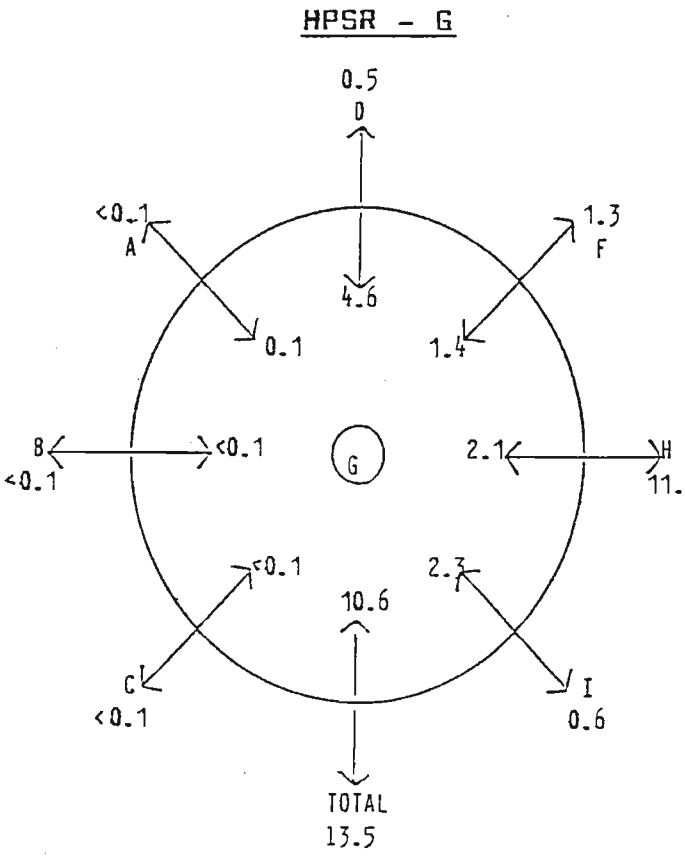
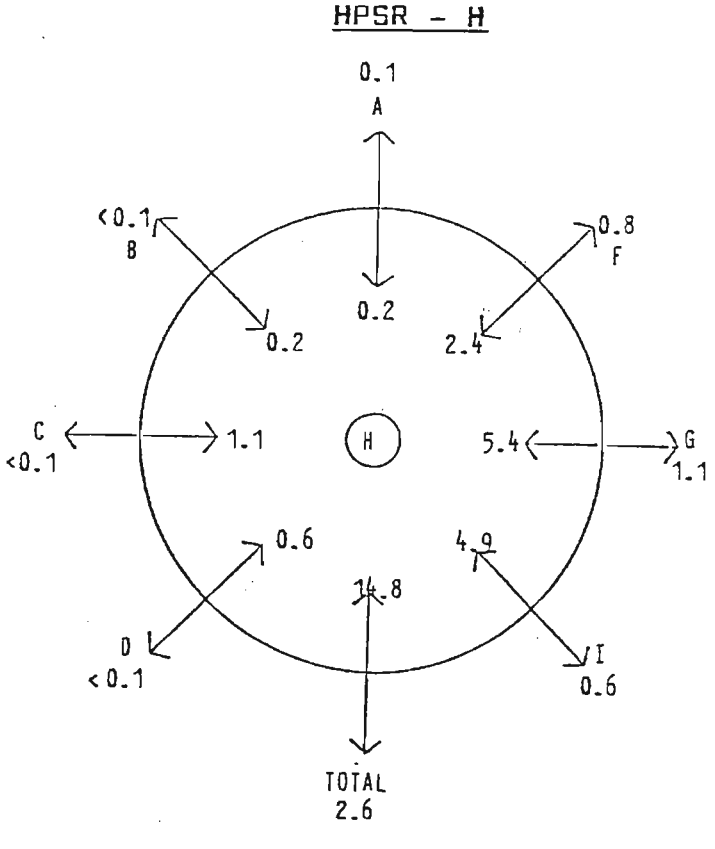
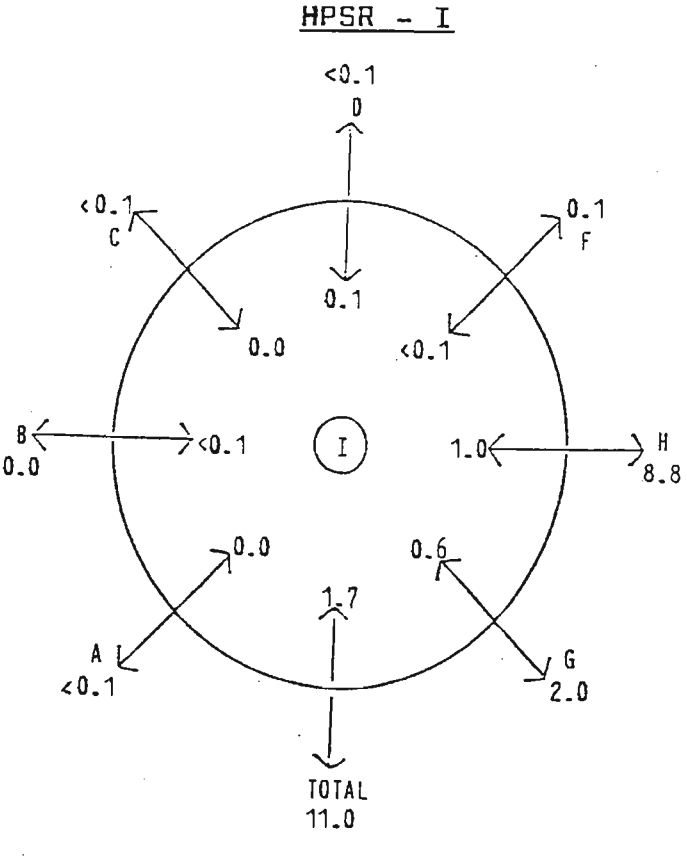


FIGURE [2] (Continued)







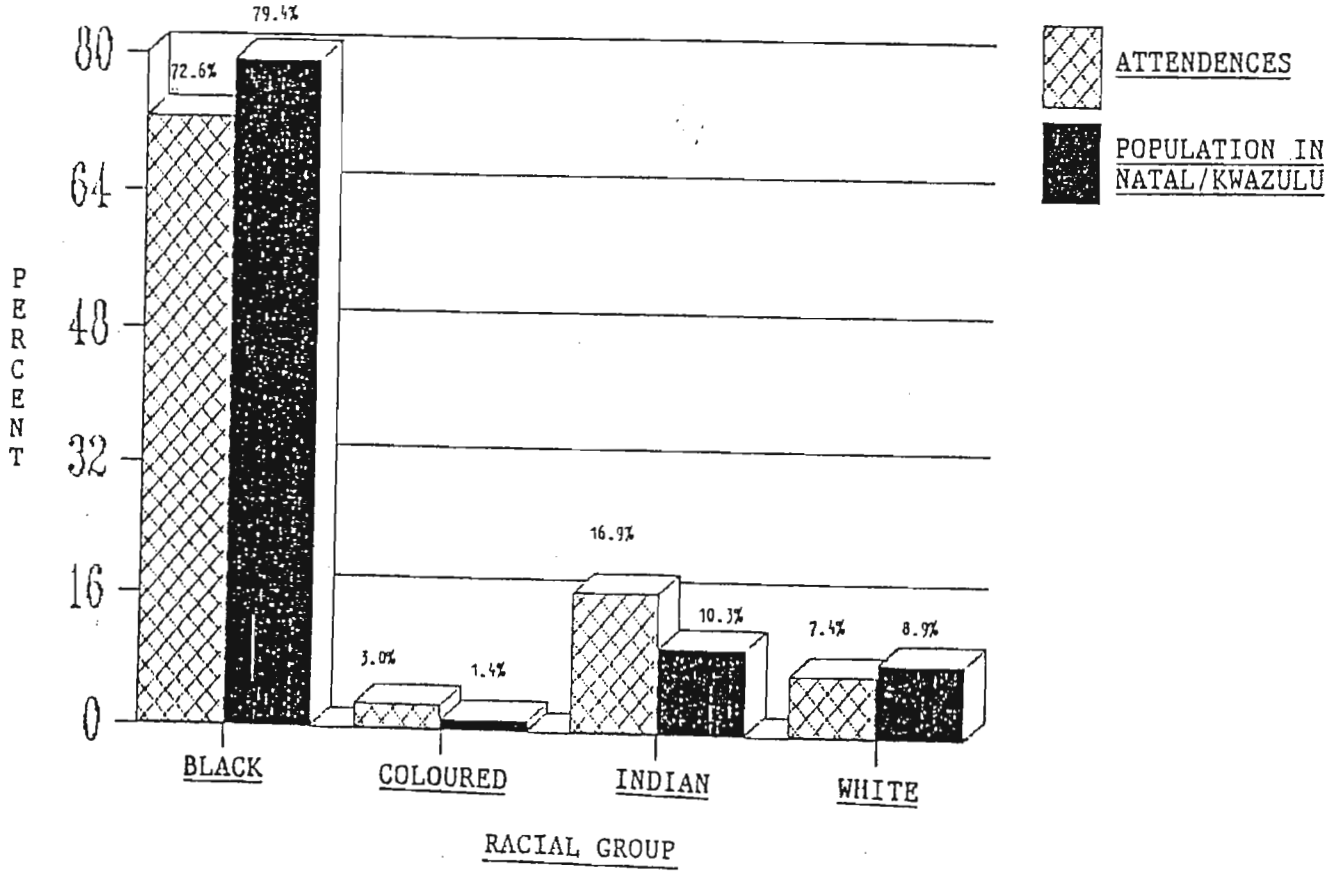


UTILIZATION OF HEALTH CARE FACILITIES ACCORDING TO RACE

During the study period of 1 week 130644 outpatients attended health care facilities. This represents 6793488 attendances per annum. Of the former figure 72.6%, 16.9%, 7.4% and 3.0% were in respect of Blacks, Indians, Whites and Coloureds respectively. The race of 0.1% attenders was unspecified (Table 40 and Figure 3).

FIGURE 3

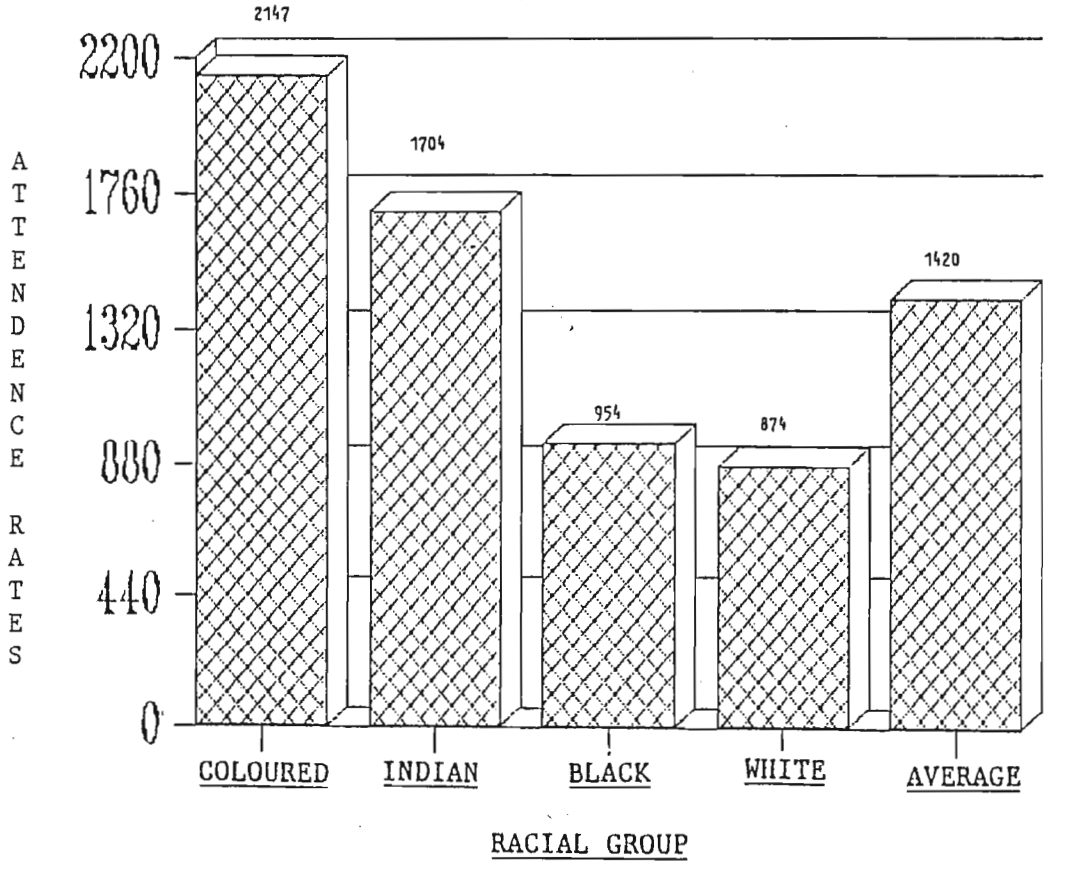
ATTENDENCES AT HEALTH FACILITIES ACCORDING TO RACIAL GROUP (PERCENT) AND RACIAL COMPOSITION OF POPULATION OF NATAL/KWAZULU



The average population-based utilization rate for each of the above population groups was 954, 1704, 874 and 2147 attendances per thousand per annum respectively. (Figure 4 and Table 40).

FIGURE 4

UTILIZATION OF OUTPATIENT FACILITIES ACCORDING TO RACIAL GROUP (ATTENDENCES PER 1000 POPULATION PER ANNUM)

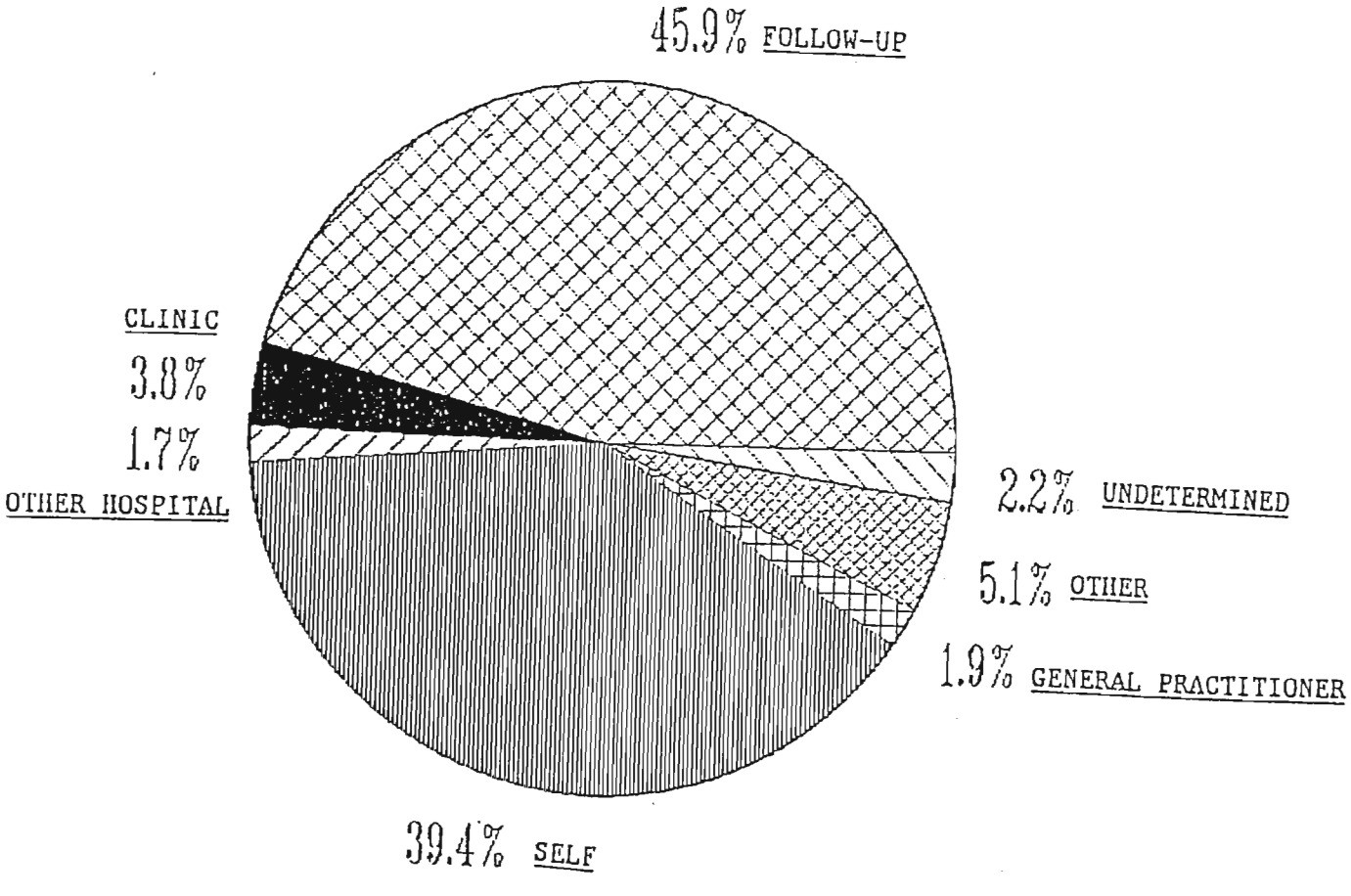


USE OF HEALTH CARE FACILITIES ACCORDING TO SOURCE OF REFERRAL

The source of referral of attenders was established. It was found that almost half (45.9%) of all attendances were in respect of follow-up visits. Self-referral accounted for 39.4% of attendances. Clinics, hospitals, general practitioners and other sources accounted for only 12.5% of referrals. The source of 2.2% of attenders was undetermined.
(See Figure 5 and Table 41).

FIGURE 5

USE OF PUBLIC SECTOR HEALTH FACILITIES
ACCORDING TO SOURCE OF REFERRAL



DISCUSSION

CATCHMENT POPULATION

The catchment population of a health facility is the size of the population from which the health facility draws its patients, when account is taken of the proportion of that population which utilizes other health facilities. The catchment area of the health facility is sometimes called service area, sphere of influence, tributary area or demand field. The geographical extent over which the catchment population will reside is not necessarily defined, as proportions of the catchment population of a health facility may be from distant geographical areas. The greater proportion of the catchment population will reside in the immediate vicinity of the health facility. However, a proportion will be from outside of the immediate vicinity, termed "the cross boundary flow". In general, services of higher order have larger catchment areas than lower order services. However, catchment populations are influenced by a number of factors such as distance, size of facility, area of specialization, intervening opportunities available to users and even discrimination on the grounds of race and social standing.

The size of the population from which the health facility draws its patients may comprise a proportion of the magisterial district in which the health facility is situated, in addition to smaller proportions of adjacent magisterial district. One could therefore also define a catchment population of a health facility to be the proportion of populations of magisterial districts which utilize that health facility. The catchment population is thus based on a proportional analysis of the number of patients attending the health facility and the population size of the area from which they come.

In urban areas, hospital service areas are usually not truly symmetrical. One cause of this the fact that lower income areas are usually poorly served by hospitals. Hospital areas are often well defined in rural areas especially with the existence of only one hospital and where hospital choices are few.[3]

THE PURPOSE OF DETERMINING CATCHMENT POPULATIONS

Determination of catchment populations is essentially an evaluatory tool in the objective assessment of health care delivery systems and in the future planning of health care facilities.

The catchment population and the extent of its geographical coverage is an excellent and sensitive indicator for ascertaining utilization of existing health care facilities and for the future siting and relocating of hospitals and clinics. It also reveals the extent of cross boundary flow of patients utilizing these facilities.

Poor utilization could be due to a number of factors or their combination, such as geographical or financial inaccessibility of the health facility or poor quality care in terms of facilities, equipment and availability and qualifications of manpower. Siting of new health facility is determined by a number of ways. Over-utilization of a health facility in a geographically defined area or significant cross boundary flow of patients away from the area may draw attention to the need of new health facilities. The ratios of populations to health facilities or ratios of populations to health care personnel are two other determinants for siting of new health facilities.

Catchment population studies provide information on cross boundary flow of patients. Ideally these should be kept to a minimum. This could be achieved in a number of ways such as resiting inappropriately sited facilities, planning new facilities in areas that are inadequately served, and upgrading the quality of health care in a health facility. The latter is achieved by improving the facilities or improving the medical and paramedical personnel in terms of numbers and quality, or making the service as comprehensive as possible.

FORMULAE FOR CALCULATING CATCHMENT POPULATIONS

SIMPLIFIED FORMULA : The catchment population of clinic "M" in Natal/KwaZulu is calculated as follows:

$$\frac{\text{Total number of patients seen at clinic "M" in unit time}}{\text{Total number of patients seen in all health facilities in Natal/KwaZulu in unit time}} \times \text{Total Population of Natal/KwaZulu}$$

DETERMINATION OF CATCHMENT POPULATION COMPONENTS : The catchment population of a health facility is calculated by determining the proportion of each component population which uses that health facility. By applying these proportions to the sizes of the component populations the size of the user population of a health facility can be determined.

The following abbreviations may be used to represent the required data:

C^{x}_{A} = the number of attendances at health facility "X" by residents of HPSR A

C^{T}_{A} = the total number of attendances at all health facilities by residents of HPSR A

P_{A} = the population of HPSR A.

K^{x}_{A} = catchment population component of health facility "X" attributable to residents of HPSR A.

$$K^{X}_{A} = \frac{C^{X}_{A}}{C^{T}_{A}} \times P_{A}$$

The total catchment population of a health facility is the sum of these catchment population components. If HPSR A to I (excluding E) are considered the total catchment population of health facility X may be represented as follows:

$$K^{X} = K^{X}_{A} + K^{X}_{B} + K^{X}_{C} + K^{X}_{D} + K^{X}_{F} + K^{X}_{G} + K^{X}_{H} + K^{X}_{I}$$

In order to reflect the utilization of the hospitals and clinics by the populations within magisterial districts and HPSRs, it was decided to calculate the proportion of potential people from each HPSR and even each magisterial district utilizing all the health facilities in Natal/KwaZulu.

SAMPLING TECHNIQUE

Comparisons are made with a similar, hospital service area study, in the city of Ibadan.[3] Although the present study surveyed a whole region (Natal/KwaZulu), the Ibadan study focussed on the catchment area of a city only. All health facilities in the area under consideration took part in both studies. Ibadan was divided into wards, as Natal/KwaZulu was subdivided into HPSRs and magisterial districts. However, whilst the present study gathered data from patients, the Ibadan study derived data from records and case notes through a systematic sampling procedure. The Ibadan study looked at inpatients as well as outpatients whereas the present study studied only outpatient utilization. The survey period of the Ibadan study was six years, whereas the present survey was conducted over one week only. However, the Ibadan study took samples of only 5% to 10%, whereas the present study took a 100% sample of the study period. In addition, whereas the total patient records in the Ibadan study were 23984, the total number of patients taking part in the present study was 130644.

It was considered relevant to compare sampling methods in similar studies and to look at the merits of each. Financial constraints do play a major role in determining study methods.

The six year duration of the Ibadan study would have overcome any annual and seasonal or other time related variations. It would also compensate for only a 5% to 10% sample. The immense patient load in the present study was prohibitive in extending the survey period. However its 100% sampling was commendable.

PITFALLS IN MORBIDITY SURVEYS ON INSTITUTE INMATES

Catchment population and utilization studies are often linked with data on morbidity. This, the outpatient catchment population study, has not been linked with morbidity studies, though its sister survey, on inpatient catchment populations, which at present is in the process of being collated and evaluated, has been linked with morbidity profiles. However, one should be aware of two particular weaknesses in such studies.

First of all, the morbidity data refer only to morbidity among those who seek help care. It obviously misses those who fail to seek care due to social, psychological or economic reasons or difficulty of access.[4]

Secondly, decision for further care or "follow-up" is often made by the provider and not by the patient. It is the supplier who largely determines demand. Financial or other motives may be connected. For example, in an area where there are a lot of surgeons, studies have shown a high rate of surgical operations. Other studies have demonstrated that areas with high ratio of hospital beds show increased hospital utilization rates.[4]

CARTOGRAPHY AND CENTROGRAPHY

Cartography (the art and science of map making) and Centrography, a related science, are two simple versatile methods of spatial analysis in examining the locational characteristics of health care facilities - where and how are health facilities distributed. Cartographic analysis involves map comparisons, describes the nature of particular spatial patterns, and suggests relevant hypothesis on the basis of observed locational relationships among mapped phenomena such as health facilities. Centrography substantiates by providing certain objective quantitative measures regarding the basic characteristics of a particular distribution. It also generates a graphic summary, the Standard Deviational Eclipse (SDE) which offers a convenient means for direct comparison of multiple spatial patterns.[5]

The importance of geography and spatial planning of health facilities in the health delivery system cannot be over-emphasized. Spatial dimension of access refers to physical accessibility (terrain and/or the distance). Other factors being equal, relative access to health care decreases with increasing distance from the location or concentration of health care resources.

Cartography and Centrography, used in conjunction, in the study of locational characteristics of health facilities, provide a sound basis for efficient planning of regional health care delivery systems.

This study did not make use of such innovating techniques in the study of health care facilities in Natal/KwaZulu. However, future studies in related fields should consider Cartography and Centrography as two invaluable tools in the evaluation and analysis of data for the overall effective planning in the health care delivery system, and especially with regard to the siting of future health facilities.

ROUTINE DATA COLLECTION VIS-A-VIS AD-HOC STUDIES

There is an urgent need for an effective method to evaluate health care facilities and their utilization. The collection of relevant, routine integrated data in a well established health information system is far more superior as an evaluatory tool than the conduction of ad-hoc surveys such as this. There is an on-going collection of data. It is available when needed. As the data is continuously collected and evaluated, updated results of a specified period immediately prior to the time of need is always available. Effective intervention can take place sooner and more readily. There is minimum loss of time. The overall net effect is an efficient health information system of the region and an effective health care delivery.

Furthermore, if the collection of data is accomplished with community involvement, it has even further benefits. The sum becomes greater than the components. It stimulates community interest in health matters and forges closer relations between health workers and members of the community. In addition, it generates data of immediate usefulness in the planning of programmes and health education.[6]

However, it is equally important to point out some pitfalls in some health information systems. Often abundant information is collected and supplied to policy makers but not analyzed in a way that is helpful. Putting data in special ways or exploring their relationships to various demographic groupings such as age, sex, residence, area, etc, can facilitate policy decisions. In addition, demographic changes such as changes with time in the relative proportions of children, women of child bearing age or elderly will provide information on the types of diseases expected and in the planning of future health facilities.[7]

Although data for the determining of catchment populations is routinely collected in many sophisticated health information systems, this particular survey was an ad-hoc one, and therefore suffers from the defects of all ad-hoc surveys. It has taken long to collect, collate and evaluate the data. Interventive programmes planned as a result of the findings of this study have correspondingly been delayed. The mechanisms and procedures for the collection of the data were not pre-established, tried and tested. In addition, the staff of the health facilities responsible for the collection of the data were not trained. There is therefore greater likelihood of errors in the sampling, briefing and interviewing procedures.

RELATIONSHIP OF CATCHMENT POPULATION TO MEDICAL CARE

The quality of medical care is often influenced by the catchment population. All other factors being equal, one health facility may provide a superior quality health care than another whose catchment population is significantly larger. This is attributable to a more favorable patient to health personnel ratio and the extra time spent on each individual patient.

On the other hand, patients tend to utilize more frequently the hospitals which they think provide the best available health care. It was thus observed in this study that hospitals that command high respect for a number of reasons are visited by patients from all over Natal/KwaZulu. Two examples of such major referral hospitals are King Edward VIII and Wentworth, both in HPSR H (Durban). These two hospitals have appreciable catchment populations from every HPSR in Natal/KwaZulu; that is, a wide spread of patronage amongst the HPSRs.(See Table 34). A similar study conducted in Ibadan have revealed almost identical utilization patterns.[8]

Varying local hospital market areas would also substantially influence the amount of medical care people receive. The variations in the local market areas may be due to differences in illness rates, but more importantly, they would be due to inappropriate over-usage (unnecessary care) or inappropriate low usage (insufficient care).[9]

The variations in the use of health facilities may be determined by the medical model in which the outcome for the patient is optimised. However, it is often determined by the economic model whereby the tendency is to cut services on the basis of statistical norms. Governments and businesses are often guilty of this, and interfere in clinical decision-making in order to save money. The medical consequences of the cut-backs are considered only as secondary issues.

DECENTRALIZATION IN THE HEALTH MANAGEMENT PROCESS

Multiple health authorities and rigid central control create many problems in the health care delivery system, such as duplication of services, cost-intensive services and poor overall management of the health care system. The difficulties are especially experienced in the control and monitoring functions such as lack of a single health information system, collection of routine relevant data and notification of diseases.

One definitive solution would be the effective delegation to the regional and district health authorities the task of managing the health services on behalf of the State, as is done successfully in Britain.[10] The regional health authorities should even determine policies and priorities but within national guidelines. With their knowledge of local conditions and circumstances, they would be able to apply policy more sensibly and more appropriately.

In Natal/KwaZulu, the HSLC would be the most appropriate regional health authority. The sub-regional committees of this body would act as the district health authorities. The problem of duplication would also be resolved, as there would now be one effective health authority.

The concept of a national service would still be retained, as is the case in Britain. There would be equitable access and treatment facilities. However, there is bound to be geographical variations.

The regional health authority will work within resources allocated to it. With the hierarchy of control coming downward, there would inevitably be accountability upwards. Above all, there would be a system of regular reviews based on an analysis of performance indicators, setting of targets and submission of detail plans on a regular basis.

CATCHMENT AREAS VIS-A-VIS PRIVATE PRACTICE

In terms of private practice, the determination of catchment populations serves a very different function, especially that of indicating viability of the private practice. It has been suggested that there is a minimum service area below which physician practices cannot be expected to survive.[11] This minimum size may vary in different areas and will be dependent on a number of variables.

This factor assumes significant proportions when dealing with health care to rural areas. In such areas there is often a disparity between perceived need (or want) for health care services and the demand for these. Need is the amount of care deemed necessary by health care providers, whereas demand is the active desire for and ability to purchase these services. Demand exists only when need is backed up with purchasing power which often does not exist in rural areas.

BROAD BASED COMMUNITY PARTICIPATION IN THE MANAGEMENT OF HEALTH CARE DELIVERY SYSTEMS

Community participation and broad based membership is particularly important in the local, district and regional health authorities. It gives a sense of ownership to the local community, and therefore pride, commitment and dedication to the task. There is greater cooperation and involvement by the people and the community as a whole. The decisions are not imposed, but democratically arrived at with full participation by everyone concerned.

The participation must also be broad based and involve people from as many walks of life as is relevant in the decision-making of the health care delivery system. In the British NHS for example, the members of the district and regional health authorities include a consultant, a general practitioner, a nurse, trade unionist, university nominee, four councillors and six generalists from a range of backgrounds.[12] A composition of a health authority such as this would ensure a cohesive corporate entity, maximum participation, acceptability and credibility by the community. It would have an overall positive bearing on the community in terms of its health needs.

STATE FUNDING OF HEALTH CARE VERSUS PRIVATISATION

This study has clearly demonstrated the immediate and urgent need for the provision of more clinics. This is made evident by the fact that there is an overall mean catchment population of 36,591 people for each clinic in Natal/Kwazulu. Statistics and experience have identified this need especially in rural areas and amongst the lower socio-economic groups. Moreover, about 75% of the population of this country live in Third World conditions.

In view of the above, the thrust for privatisation would appear out of context and even unethical and immoral. On the contrary, there should be increased spending for public sector health facilities, and especially for health education in general.

The reverse may be applicable in many other countries especially of the First World. In U.S.A., for example, federal funding for health manpower education has been reducing in the past decade. Student admission rates, which were at a peak in 1981, being the highest in history then, are also declining. This is attributable to a number of reasons, one of which is the reaching of optimal levels of health care, including manpower.[13]

In South Africa, we are far from being in an optimal state of health care in general and health manpower in particular. The trend should therefore not be towards privatisation, but for increased State and Provincial funding of health care for the vast majority of the impoverished masses of this land.

CONCLUDING REMARKS

In the planning and evaluation of any health care delivery system, a number of factors need to be taken into account, such as economic, environmental, behavioral/cultural and administrative considerations. However, a crucial factor should be the acceptability of the health care delivery system. [14]

Furthermore, if one accepts equality of opportunity as an important objective of the health care delivery system, then the disparities in the provision of the health services need to be urgently overcome. There needs to be a system of controls and incentives, and the creation of restricted and designated areas in employment for private and public sector health services and provision.

CONCLUSIONS

1. There are seven major health authorities in addition to the Local Authorities. This has resulted in fragmentation and duplication of services and a very cost intensive service. Many health authorities with their costly bureaucracies are providing care which one central health authority is capable of doing for the entire health needs of Natal/KwaZulu.

2. Clinics are operated mainly by DHW(KZ) and Local Authorities, the DHS and DNHPD contribute minimally in this regard.

3. The considerable majority of attenders used health facilities in their HPSR of residence.

4. The distribution of clinics throughout the Region is extremely uneven.

5. The principal contributors to outpatient care are DHW(KZ) and DHS.

6. Clinics and hospitals contribute approximately evenly to outpatient attendance.

7. Approximately 6.8 million outpatient attendances are processed per annum.

8. Coloureds and Indians are, per capita, the heaviest users of public outpatient facilities.

9. Significant inward cross boundary flow occurred in HPSRs F, G and H.

10. Outward cross boundary flow in excess of 10% of the catchment population size occurred in HPSRs C, D, G and I.

11. Most patients were self referred or were attending for follow up purposes.

12. There is only a rudimentary PHC network and even the non-existence of such in some areas. A well developed PHC system does not only provide optimum health for individuals and communities, but is also very cost effective.

RECOMMENDATIONS

1. Pronounced outward cross boundary flow in many districts has strengthened and reinforced the urgent need for an effective and practical Primary Health Care system. In the provision of such a system great care must be taken that:

   (a) There is correct siting of future health facilities.

   (b) The clinics must provide comprehensive health care.

   (c) The quality of care does not suffer in relation to the quantity.

   (d) The clinics are accessible from a cost and geographic point of view, as well as acceptable.

   (e) There is active community participation in the establishment of primary care services.

   (f) There are adequate numbers of appropriately skilled professionals, so that affordability on the one hand and maintaining of standards on the other, are balanced.

2. Account should be taken of the relative utilization rates of the various population groups when planning health facilities.

3. Act No 63 of 1977 should be fully implemented in respect of the peripheralization of hospital services.

4. Dependency on costly and time consuming ad-hoc studies should be minimized.

5. There is an urgent need for a comprehensive, effective, routine and integrated health information gathering system for Natal and KwaZulu as an effective evaluatory tool in the delivery of health care and for the future planning of new health care facilities.

6. It is strongly recommended that where problems have been highlighted in this study in terms of significant cross-boundary flow, then further investigation and urgent appropriate actions should be executed without undue delay by the relevant authorities at the local or regional level.

   It is considered that interventive action will be more appropriate if carried out regionally by the respective regional sub-committees of the HSLC of Natal/KwaZulu. The members of this committee will be armed with appropriate knowledge of local circumstances in addition to the set of data available from this study.

7. It is recommended that as there are significant constraints concerning the establishment of a single central health authority for Natal and KwaZulu, there should at least be one <u>functional</u> central health authority for this territory. This will overcome fragmentation and duplication of services, rationalize manpower and other resources, save costs, and above all, is likely to provide superior quality of health care for the residents of this region. This, it is considered, would meaningfully enhance the quality of life of the individual and contribute to the dignity in man.

ACKNOWLEDGEMENTS

The assistance of health services managers in the head and regional offices of health authorities and in individual health facilities is acknowledged. Without their cooperation and participation this study would have been made considerably more difficult.

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TABLE 1A

MAGISTERIAL DISTRICTS AND TOTAL POPULATION SIZE

[A] KWAZULU

NUMBER	NAME	POPULATION	NUMBER	NAME	POPULATION
1.	Ingwavuma	96240	14.	Inkanyezi	121420
2.	Simlangentsha	54790	15.	Ongoye	108140
3.	Umbombo	60540	16.	Kwa Maphumulo	149020
4.	Nongoma	131320	17.	Ndwedwe	146780
5.	Hlabisa	105080	18.	Empumalanga	165980
6.	Mahlabatini	102460	19.	Ntuzuma	148920
7.	Nseleni	133600	20.	Mlazi	177100
8.	Madadeni	206100	21.	Embumbulu	232800
9.	Nqutu	133900	22.	Vulindlela	203540
10.	Nkandla	99520	23.	Hlanganani	87380
11.	Msinga	120320	24.	Vulamehlo	75980
12.	Enambithi	103160	25.	Emzumbe	184000
13.	Okhahlamba	69280	26.	Ezingolweni	159560
					3376930

TABLE 1B

MAGISTERIAL DISTRICTS AND TOTAL POPULATION SIZE

[B] NATAL

NUMBER	NAME	POPULATION	NUMBER	NAME	POPULATION
50.	Ubombo	25440	70.	Pietermaritzburg	187200
51.	Ngotshe	33320	71.	Camperdown	42180
52.	Hlabisa	36240	72.	Richmond	42680
53.	Vryheid	88220	73.	Polela	12340
54.	Babanango	6720	74.	Lions River	43880
55.	Paulpietersburg	45800	75.	Impendle	6200
56.	Lower Umfolozi	63160	76.	Underberg	14540
57.	Mtunzini	30020	77.	Mount Currie	4312
58.	Eshowe	28680	78.	Alfred	8520
59.	Mtonjaneni	22720	79.	Port Shepstone	529120
60.	Lower Tugela	128300	80.	Umzinto	93940
61.	Dundee	33560	81.	Durban	483900
62.	Newcastle	55660	82.	Pinetown	171308
63.	Glencoe	19720	83.	Inanda	155200
64.	Utrecht	37000	84.	Bergville	83660
65.	Danhauser	18240	85.	Klip River	105020
66.	Mooi River	23680	86.	Estcourt	50660
67.	Umvoti	45220	87.	Weenen	14080
68.	Kranskop	6340	88.	Mahlabatini	-
69.	New Hanover	46840	89.	Ixopo	36640
70.	Pietermaritzburg	187200	90.	Chatsworth	217272
					3136340

TABLE 2

HEALTH AUTHORITIES OPERATIVE IN NATAL AND KWAZULU

1	Department of National Health and Population Development (DNHPD).
2	Department of Health and Welfare, KwaZulu (DHW)(KZ).
3	Department of Hospital Services (DHS).
4	Local Authorities
5	Development and Services Board (DSB). (Responsible for the administration of a number of smaller local authorities and associated clinics).

TABLE 3

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR A

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Madadeni	Madadeni	Madadeni No 1 Madadeni No 5 Madadeni No 7 Osizweni No 1 Osizweni No 2
Dundee	Dundee	Dundee
Newcastle	Newcastle	Newcastle
Glencoe	Nil	Nil
Utrecht	Niemeyer Memorial	Nil
Danhauser	Nil	Danhauser

TABLE 4

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR B

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Nqutu	Charles Johnson	Nondweni Isandlwana Mangeni Mondlo No 1 Mondlo No 2 Nkande Ntababomvu
Vryheid	Vryheid Mountain View Siloah Mission	Vryheid
Paulpietersburg	Nil	Paulpietersburg
Babanango	Nil	Mpungamhlope (Nkonjeni)

TABLE 5

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR C

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Ingwavuma	Manguzi	KwaNdaba
		Mosvold
		Gwaliweni
		Emanyiseni
		Ndumu
Ubombo	Bethesda	Ophansi
		Madonela
		Mbozwana
		Nibela
		Tshongwe
Nongoma	Benedictine	Edengeni
		Ekubungazeleni
		Hlengimpilo
		Maphophoma
		Kwanjoko
		Osuthu
Simlangentsha	Itshelejuba	Nil
Hlabisa	Hlabisa	Madwaleni
		Mpukunyoni
		Nkundusi
		Inhlwathini
		Kwamsame
		Ntondweni
Ngotshe	Nil	Nil

TABLE 6

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR D

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Msinga	Church of Scotland	Collessic Gordon Mandleni Mfenebude
Mnambithi	Nil	Nil
Okhahlamba	Nil	Nil
Bergville	Nil	Nil
Klipriver	Ladysmith	Ladysmith
Estcourt	Estcourt Emmaus	Estcourt Colenso
Weenen	Nil	Nil

TABLE 7

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR F

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Ngoye	Nil	Ekuphumuleni
		Thokozani
		Phaphamani
		Vulindlela
Inkanyezi	Catherine Booth	Ndulinde
		Sundumbili
	Mbongolwani	Gezinsila
		Mathungela
		Ngudwini
		Osungolweni
		Samungu
Nkandla	Ekombe	Mfongosi
		Mthungweni
		Xulu
	Nkandla	Halambu
		Nongamlana
		Esibhudeni
		Thalaneni
		Vumanhlamvu
		Amakhabela
Mahlabatini	Ceza	Dlebe
		Ezimfabeni
	Nkonjeni	Ncemaneni
		Ulundi
		Nhlungwane
		Kwamame
		Zilulwane
		Ulundi Unit A
		Mabedlana
Nseleni	Ngwelezana	Luwamba
		Ngwelezana
		Nseleni
		Dondotha
		Nomponzana

Continued next page

TABLE 7 (Continued)

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
KwaMaphumulo	Appelsbosch	Echibini
		Emtulwa
		Esidumbini
	Umphumulo	Isithundu
		Mbhekaphansi
		Mthandeni
		Otimati
	Umtunjambili	Amandlalathi
		Ehlanzeni
Lower Umfolozi	Empangeni	Richards Bay
		Empangeni
		Ntambanana
Eshowe	Eshowe	Eshowe
Mtunzini	Nil	Macambini
		Ntsingweni
Mtonjaneni	St Mary's Melmoth	Melmoth
		Kwayanguye
		Makhosini
Lower Tugela	Stanger	Ballito
		Shakaskraal
		Stanger
		Tugela

TABLE 8

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR G

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Empumulanga	Nil	Mpumulanga
Hlanganani	Appolinaris	Gqumeni Gwala Polela
Vulindlela	Edendale	Caluza Sangozima
Impendle	Nil	Nil
Underberg	Nil	Nil
Mooi River	Nil	Bruntville Mooi River
Umvoti	Greytown	Greytown
Kranskop	Nil	Nil
New Hanover	Nil	Nil
Pietermaritzburg	Grey's Northdale St Anne's	East Street Pietermaritzburg Imbali
Camperdown	Don McKenzie	Bothas Hill
Richmond	Nil	Richmond
Ixopo	Christ the King	Ixopo Gcinokuhle
Polela	Nil	Nil
Lions River	Nil	Nottingham Howick

TABLE 9

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR H

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Indwedwe	Montebello	Indwedwe
		Molweni
		KwaNyuswa
		Motala
		Wasijana
Embumbulu	Nil	Magabheni
Mlazi	Prince Mshiyeni	Umlazi D
		Ekuphileni
		Umlazi U21
		Umlazi Polyclinic
		Umzomuhle H
	St Anne's	
Ntuzuma	Nil	KwaMashu
		Goodwins
		KwaSimama
		Rydalvale
Durban	Addington	Beatrice Street
	Clairwood	Newlands East
	King Edward VIII	Amanzimtoti
	Wentworth	Durban
	McCord Zulu	Isipingo
	St Aidens	Kingsburgh
		Queensburgh
		Westville
Pinetown	Hillcrest	KwaDabeka
	St Mary's Marianhill	Kloof
		New Germany
		Pinetown

Continued next page

TABLE 9 (Continued)

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Inanda	Osindisweni	Phoenix
		Tongaat
		Duffs Road
		Ottawa
		Redcliff
		Umhlanga
		Verulam
		Sivananda
Chatsworth	R K Khan	Shallcross

TABLE 10

HOSPITALS AND CLINICS IN NATAL/KWAZULU

ACCORDING TO HPSR AND MAGISTERIAL DISTRICT

HPSR I

MAGISTERIAL DISTRICT	HOSPITAL	CLINIC
Vulamehlo	Nil	Hlokozi Dududu Jolivet
Emzumbe	Assisi	Shelley Beach Ndelu Morrisons Ntimbankulu Nyangwini Pungashe St Faith's
Ezingolweni	Nil	Nil
Mt Currie	Usher Memorial Taylor Bequest	Kokstad Matatiele
Alfred	St Andrews	Harding
Port Shepstone	Murchison Port Shepstone	Bendigo Marburg Margate Port Shepstone Umtentweni
Umzinto	G J Crookes	Cragieburn Scottburgh Umkomaas Umzinto (N)

TABLE 11

DISTRIBUTION OF OUTPATIENT CARE ACCORDING TO RESPONSIBLE HEALTH AUTHORITY : PERCENT (%)

HEALTH AUTHORITY	PERCENTAGE
Department of Hospital Services	33.8
Department of National Health	9.5
Department of Health & Welfare (KZ)	38.5
Local Authority	18.2
Total	100.0

TABLE 12

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR A

HOSPITAL	CLINIC	CATCHMENT POPULATION
Madadeni		54390
	Madadeni No 1	37503
	Madadeni No 5	30958
	Madadeni No 7	28127
	Osizweni No 1	29650
	Osizweni No 2	44987
Dundee		42767
	Dundee	20134
Newcastle		17921
	Newcastle	20031
Niemeyer Memorial		31404
	Danhauser	15443

TABLE 13

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR B

HOSPITAL	CLINIC	CATCHMENT POPULATION
Charles Johnson		27669
	Nondweni	17730
	Isandlwana	10242
	Mangeni	6391
	Mondlo No 1	25000
	Mondlo No 2	33805
	Nkande	7603
	Ntababomvu	13866
Vryheid		57749
	Vryheid	18231
Mountain View		4220
Siloah Mission		3526
	Paulpietersburg	35879
	Mpungamhlope (Nkonjeni)	7422

TABLE 14

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR C

HOSPITAL	CLINIC	CATCHMENT POPULATION
Manguzi		24967
	KwaNdaba	9218
	Mosvold	24771
	Gwaliweni	5930
	Emanyiseni	11834
	Ndumu	12570
Bethesda		14146
	Ophansi	10736
	Madonela	9032
Mseleni		13244
	Mbozwana	11487
	Nibela	20497
	Tshongwe	11086
Benedictine		30565
	Edengeni	8649
	Ekubungazeleni	11820
	Hlengimpilo	8361
	Maphophoma	22819
	Kwanjoko	17198
	Osuthu	14994
Itshelejuba		54647
Hlabsia		25061
	Madwaleni	13015
	Mpukunyoni	21875
	Nkundusi	25269
	Inhlwathini	12078
	Kwamsame	26664
	Ntondweni	13827

TABLE 15

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR D

HOSPITAL	CLINIC	CATCHMENT POPULATION
Church of Scotland		57665
	Collessic	5649
	Gordon	5649
	Mandleni	5649
	Mfenebude	5649
Ladysmith		141746
	Ladysmith	66275
Estcourt		28559
	Estcourt	25968
Emmaus		133337
	Colenso	4950

TABLE 16

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR F

HOSPITAL	CLINIC	CATCHMENT POPULATION
	Ekuphumuleni	6943
	Thokozani	48574
	Phaphamani	21451
	Vulindlela	11379
Catherine Booth		5984
	Ndulinde	9018
	Sundumbili	36277
Mbongolwani		9251
	Gezinsila	1481
	Mathungela	3402
	Ngudwini	6093
	Osungolweni	3933
	Samungu	7456
Ekombe		9989
	Mfongosi	3805
	Mthungweni	5198
	Xulu	8139
Nkandla		17424
	Halambu	7965
	Nongamlana	11344
	Esibhudeni	3729
	Thalaneni	9048
	Vumanhlamvu	9200
	Amakhabela	6479
Ceza		21014
	Dlebe	5934
	Ezimfabeni	7697
Nkonjeni		24027
	Ncemaneni	6211
	Ulundi	12173
	Nhlungwane	4050
	Kwamame	13675
	Zilulwane	5508
	Ulundi Unit A	16021
	Mabedlana	5048

TABLE 16 (Continued)

HOSPITAL	CLINIC	CATCHMENT POPULATION
Ngwelezana		52956
	Luwamba	877
	Ngwelezana	29426
	Nseleni	16560
	Dondotha	24688
	Nomponzana	12706
Appelsbosch		13525
	Echibini	19138
	Emtulwa	9108
	Esidumbini	16560
Umphumulo		14826
	Isithundu	12841
	Mbhekaphansi	14987
	Mthandeni	12145
	Otimati	15529
Umtunjambili		5357
	Amandlalathi	3435
	Ehlanzeni	5806
Empangeni		13616
	Richards Bay	19405
	Empangeni	20394
	Ntambanana	6802
Eshowe		73529
	Eshowe	8324
	Macambini	10501
	Ntsingweni	20099
St Mary's Melmoth		16879
	Melmoth	5837
	Kwayanguye	7208
	Makhosini	2679
Stanger		96057
	Ballito	1588
	Shakaskraal	6137
	Stanger	21678
	Tugela	2505

TABLE 17

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR G

HOSPITAL	CLINIC	CATCHMENT POPULATION
	Mpumulanga	90432
Appolinaris		33440
	Gqumeni	10757
	Gwala	12652
	Polela	30922
Edendale		90628
	Caluza	54517
	Sangozima	21145
	Bruntville	11431
	Mooi River	7865
Greytown		73384
	Greytown	24678
Grey's		40921
	East Street	80086
Northdale		76269
	Pietermaritzburg	126596
St Anne's		5792
	Imbali	14134
Don McKenzie		272
	Botha's Hill	25746
	Richmond	25706
Christ the King		14183
	Ixopo	16793
	Gcinokuhle	13020
	Nottingham	10150
	Howick	21839

TABLE 18

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR H

HOSPITAL	CLINIC	CATCHMENT POPULATION
Montebello		17943
	Indwedwe	11842
	KwaNyuswa	12882
	Motala	9622
	Wosiyana	11873
	Magabheni	19052
Prince Mshiyeni		50316
	Umlazi D	14607
	Ekuphileni	22830
	Umlazi U21	16432
	Umlazi Polyclinic	21119
	Umzomuhle H	24449
St Anne's		23491
	KwaMashu	81945
	Goodwins	17463
	KwaSimama	9259
	Rydalvale	16185
Addington		128528
	Beatrice Street	40672
Clairwood		97717
	Newlands East	7063
King Edward VIII		334972
	Amanzimtoti	22200
Wentworth		21533
	Durban	253159
McCord Zulu		68559
	Isipingo	5850
St Aidens		16400
	Kingsburgh	22858
	Queensburgh	6863
	Westville	7680

Continued next page

TABLE 18 (Continued)

HOSPITAL	CLINIC	CATCHMENT POPULATION
Hillcrest		2960
	KwaDabeka	78680
St Mary's Marianhill		79967
	Kloof	7197
	New Germany	5264
	Pinetown	41124
Osindisweni		30251
	Phoenix	51964
	Tongaat	20858
	Duffs Road	1483
	Ottawa	1862
	Redcliff	5878
	Umhlanga	4693
	Verulam	13416
	Sivananda	1862
R K Khan		180998
	Shallcross	13086

TABLE 19

OUTPATIENT CATCHMENT POPULATION OF HEALTH FACILITIES : HPSR I

HOSPITAL	CLINIC	CATCHMENT POPULATION
	Hlokozi	11623
	Dududu	13147
	Jolivet	18196
Assisi		17543
	Shelley Beach	11744
	Ndelu	23397
	Morrisons	19415
	Ntimbankulu	16249
	Nyangwini	24412
	Pungashe	19940
	St Faith's	18117
Usher Memorial		18064
	Kokstad	8755
Taylor Bequest		3127
	Matatiele	1646
St Andrews		4794
	Harding	4244
Murchison		194139
	Bendigo	23268
Port Shepstone		219536
	Margate	119072
	Port Shepstone	40681
	Umtentweni	16296
G J Crookes		70963
	Cragieburn	9360
	Scottburgh	6896
	Umkomaas	4089
	Umzinto (N)	12233

TABLE 20

DEPARTMENT OF HEALTH AND WELFARE KWAZULU

CATCHMENT POPULATIONS OF HOSPITALS, CLINICS AND HEALTH WARDS

NUMBER		HEALTH FACILITY	HR/MD	CATCHMENT POPULATION		
HOSP.	CLINIC			HOSPITALS	CLINICS	WARDS
	1	KWA MASHU POLYCLINIC	H19		81945	
	2	GOODWINS	H19		17463	
	3	KWA SIMAMA	H19		9259	
	4	NDWEDWE	H17		22290	
	5	RYDALVALE	H19		16185	
	6	SIVANANDA	H83		1862	
	7	MOLWENI	H17		11842	160845
1	0	APPELSBOSCH	F16	13525		
	1	ECHIBINI	F16		19138	
	2	EMTULWA	F16		9108	
	3	ESIDUMBINI	F16		16560	58331
2	0	ASSISI	I25	17543		
	1	GCINOKUHLE	G89		13020	
	2	HLOKOZI	I24		11623	
	3	NDELU	I25		23397	
	4	MORRISONS	I25		19415	
	5	NTIMBANKULU	I25		16249	
	6	NYANGWINI	I25		24412	
	7	PUNGASHE	I25		19940	
	8	ST FAITH'S	I25		18117	163716
3	0	BETHESDA	C3	14146		
	1	OPHANSI	C3		10736	
	2	MADONELA	C3		9032	33914
4	0	CATHERINE BOOTH	F14	5984		
	1	MACAMBINI	F57		10501	
	2	NDULINDE	F14		9018	
	3	NTSINGWENI	F57		20099	
	4	SUNDUMBILI	F14		36277	81881
5	0	CEZA	F6	21014		
	1	DLEBE	F6		5934	
	2	EZIMFABENI	F6		7697	34645
6	0	BENEDICTINE	C4	30565		
	1	EDENGENI	C4		8649	
	2	EKUBUNGAZELENI	C4		11820	
	3	HLENGIMPILO	C4		8361	
	4	MAPHOPHOMA	C4		22819	
	5	KWANJOKO	C4		17198	
	6	OSUTHU	C4		14994	114406
7	0	CHARLES JOHNSON	B9	27669		
	1	ISANDLWANA	B9		10242	
	2	MANGENI	B9		6391	
	3	MONDLO NO. 1	B9		25000	
	4	MONDLO NO. 2	B9		33805	
	5	NKANDE	B9		7603	
	6	NTABABOMVU	B9		13866	124576
8	0	CHURCH OF SCOTLAND	D11	57667		
	1	COLLESSIE	D11		5649	
	2	GORDON	D11		5649	
	3	MANDLENI	D11		5649	
	4	MFENEBUDE	D11		5649	80262

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TABLE 20 (Continued)

DEPARTMENT OF HEALTH AND WELFARE KWAZULU

CATCHMENT POPULATIONS OF HOSPITALS, CLINICS AND HEALTH WARDS

NUMBER		HEALTH FACILITY	HR/MD	CATCHMENT POPULATION		
HOSP.	CLINIC			HOSPITALS-KH	CLINICS-KC	WARDS
9	0	EDENDALE	G22	90628		
	1	CALUZA	G22		54517	
	2	IMBALI	G70		14134	
	3	GQUMENI	G23		10757	
	4	GWALA	G23		12652	
	5	MPUMALANGA	G18		90432	
	6	POLELA	G23		30922	
	7	SANGOZIMA	G22		21145	325186
10	0	HLABISA	C5	25061		
	1	MADWALENI	C5		13015	
	2	MPUKUNYONI	C5		21875	
	3	NKUNDUSI	C5		25269	
	4	INHLWATHINI	C5		12078	
	5	KWAMSAME	C5		26664	
	6	NTONDWENI	C5		13827	137789
11	0	EKOMBE	F10	9989		
	1	MFONGOSI	F10		3805	
	2	MTHUNGWENI	F10		5198	
	3	XULU	F10		8139	27131
12	0	MADADENI	A8	54390		
	1	MADADENI NO.1 CLINIC	A8		37503	
	2	MADADENI NO.5 CLINIC	A8		30958	
	3	MADADENI NO.7 CLINIC	A8		28127	
	4	OSIZWENI NO.1 CLINIC	A8		29650	
	5	OSIZWENI NO.2 CLINIC	A8		44987	225615
13	0	MANGUZI	C1	24967		
	1	KWA NDABA	C1		9218	34185
14	0	MBONGOLWANI	F14	9251		
	1	GEZINSILA	F14		1481	
	2	MATHUNGELA	F14		3402	
	3	NGUDWINI	F14		6093	
	4	OSUNGOLWENI	F14		3933	
	5	SAMUNGU	F14		7456	31618
15	0	MONTEBELLO	H17	17943		
	1	KWA NYUSWA	H17		12882	
	2	MOTALA (THAFAMASI)	H17		9622	
	3	WOSIYANA	H17		11873	52319
16	0	MOSVOLD	C1	24771		
	1	GWALIWENI	C1		5930	
	2	EMANYISENI	C1		11834	
	3	NDUMU	C1		12570	55106
17	0	MSELENI	C3	13244		
	1	MBAZWANA	C3		11487	
	2	NIBELA	C3		20497	
	3	TSHONGWE	C3		11086	56313
18	0	NKANDLA	F10	17424		
	1	HALAMBU	F10		7965	
	2	NONGAMLANA	F10		11344	
	3	ESIBHUDENI	F10		3729	
	4	THALANENI	F10		9048	
	5	VUMANHLAMVU	F10		9200	58710

TABLE 20 (Continued)

DEPARTMENT OF HEALTH AND WELFARE KWAZULU

CATCHMENT POPULATIONS OF HOSPITALS, CLINICS AND HEALTH WARDS

NUMBER		HEALTH FACILITY	HR/MD	CATCHMENT POPULATION		
HOSP.	CLINIC			HOSPITALS-KH	CLINICS-KC	WARDS
19	0	NKONJENI	F6	24027		
	1	NCEMANENI	F6		6211	
	2	ULUNDI	F6		12173	
	3	NHLUNGWANE	F6		4050	
	4	KWAYANGUYE	F59		7208	
	5	KWAMAME	F6		13675	
	6	ZILULWANE	F6		5508	
	7	ULUNDI UNIT A	F6		16021	
	8	MPUNGAMHLOPE	854		7422	
	9	MAKHOSINI	F59		2679	
	10	MABEDLANA	F6		5048	104022
20	0	NGWELEZANA	F7	52956		
	1	EKUPHUMULENI	F15		6943	
	2	LUWAMBA	F7		877	
	3	NGWELEZANA	F7		29426	
	4	NSELENI	F7		16560	
	5	THOKOZANI	F15		48574	
	6	DONDOTHA	F7		24688	
	7	NOMPONZWANA	F7		12706	
	8	NTAMBANANA	F56		6802	
	9	PHAPHAMANI	F15		21451	
	10	VULINDLELA	F15		11379	232361
21	0	UMPHUMULO	F16	14826		
	1	ISITHUNDU	F16		12841	
	2	MBHEKAPHANSI	F16		14987	
	3	MTHANDENI	F16		12145	
	4	OTIMATI	F16		15529	70328
22	0	UNTUNJAMBILI	F16	5357		
	1	AMAKHABELA	F10		6479	
	2	AMANDLALATHI	F16		3435	
	3	EHLANZENI	F16		5806	21076
23	0	PRINCE MSHIYENI	H20	50316		
	1	UMLAZI "D"	H20		14607	
	2	DUDUDU	I24		13147	
	3	EKUPHILENI	H20		22830	
	4	JOLIVET	I24		18196	
	5	MAGABHENI	H21		19052	
	6	UMLAZI U-21	H20		16432	
	7	UMLAZI POLYCLINIC	H20		21119	
	8	UMZOMUHLE "H"	H20		24449	200148
24	0	ST. ANNE'S	H20	23491		23491
24	118	TOTALS		646754	1861219	2507975

TABLE 21

NATAL-KWAZULU HEALTH FACILITIES : HPSR "A" NEWCASTLE

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO. HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	MADADENI K 8	%	DUNDEE N 61	%	NEWCASTLE N 62	%	GLENCOE N 63	%	UTRECHT N 64	%	DANHAUSER N 65	%	S/TOTAL HPSR A	%	OTHER HPSR's	%	TOTAL CAT POP	%
1 DUNDEE	PH	A61	531	2674	6	13935	33	463	1	8478	20	536	1	1250	3	27336	64	15431	36	42767	100
2 NEWCASTLE	PH	A62	324	35	0	0	0	15881	89	184	1	1072	6	147	1	17320	97	601	3	17921	100
3 NIEMEYER MEMORIAL	PH	A64	90	809	3	0	0	514	2	0	0	30029	96	0	0	31352	100	52	0	31404	100
4 DANHAUSER	LC	A65	276	4363	28	0	0	0	0	0	0	0	0	10885	70	15248	99	195	1	15443	100
5 DUNDEE	LC	A61	310	70	0	15793	78	103	1	3133	16	0	0	147	1	19246	96	888	4	20134	100
6 NEWCASTLE	LC	A62	389	0	0	58	0	19478	97	0	0	0	0	0	0	19536	98	495	2	20031	100
7 MADADENI	KH	A8	1422	42430	78	348	1	5962	11	0	0	1072	2	3236	6	53049	98	1341	2	54390	100
8 MADADENI NO.1 CLINIC	KC	A8	1054	35816	96	116	0	1079	3	0	0	0	0	74	0	37085	99	418	1	37503	100
9 MADADENI NO.5 CLINIC	KC	A8	883	30116	97	0	0	0	0	0	0	0	0	0	0	30116	97	842	3	30958	100
10 MADADENI NO.7 CLINIC	KC	A8	737	22447	80	348	1	2416	9	737	3	0	0	1986	7	27933	99	194	1	28127	100
11 OSIZWENI NO.1 CLINIC	KC	A8	840	29448	99	0	0	103	0	0	0	0	0	0	0	29551	100	99	0	29650	100
12 OSIZWENI NO.2 CLINIC	KC	A8	1320	37329	83	0	0	7658	17	0	0	0	0	0	0	44987	100	0	0	44987	100
CATCHMENT COMPONENT			8176	205537	55	30599	8	53656	14	12532	3	32710	9	17725	5	352759	94	20556	6	373315	100
TOTAL POPULATION			130644	206100		33560		55660		19720		37000		18240		370280		6142990		6513270	

TABLE 22

NATAL-KWAZULU HEALTH FACILITIES : HPSR "B" VRYHEID

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MO	TOTAL PATIENTS	NQUTU K 9	%	VRYHEID N 53	%	PAULPIET N 55	%	BABANANGO N 54	%	S/TOTAL HPSR B	%	OTHER HPSR's	%	TOTAL CAT POP	%
1	VRYHEID	PH	B53	600	7690	13	36104	63	5629	10	35	0	49458	86	8291	14	57749	100
2	NONDWENI	SC	B9	342	17251	97	199	1	0	0	280	2	17730	100	0	0	17730	100
3	PAULPIETERSBURG	LC	B55	152	0	0	0	0	35821	100	0	0	35821	100	57	0	35879	100
4	VRYHEID	LC	B53	185	0	0	17803	98	0	0	35	0	17838	98	393	2	18231	100
5	CHARLES JOHNSON	KH	B9	523	25460	92	696	3	256	1	0	0	26412	95	1257	5	27669	100
6	ISANDLWANA	KC	B9	197	10184	99	0	0	0	0	0	0	10184	99	58	1	10242	100
7	MANGENI	KC	B9	123	6391	100	0	0	0	0	0	0	6391	100	0	0	6391	100
8	MONDLO NO. 1	KC	B9	490	23953	96	497	2	512	2	0	0	24962	100	38	0	25000	100
9	MONDLO NO. 2	KC	B9	656	18913	56	14819	44	0	0	0	0	33733	100	72	0	33805	100
10	NKANDE	KC	B9	140	6859	90	99	1	0	0	0	0	6958	92	645	8	7603	100
11	NTABABOMVU	KC	B9	261	13042	94	199	1	256	2	0	0	13497	97	369	3	13866	100
12	MOUNTAIN VIEW	PH	B53	36	0	0	298	7	0	0	0	0	298	7	3921	93	4220	100
13	SILOAH MISSION	PH	B53	23	0	0	0	0	0	0	0	0	0	0	3526	100	3526	100
14	MPUNGAMHLOPE (NKONJENI)	KC	B54	178	0	0	1691	23	0	0	4620	62	6311	85	1111	15	7422	100
	CATCHMENT COMPONENT			3906	129743	48	72406	27	42474	16	4970	2	249593	93	19738	7	269331	100
	TOTAL POPULATION			130644	133900		88220		45800		6720		274640					

TABLE 23

NATAL-KWAZULU HEALTH FACILITIES: HPSR "C" BETHESDA

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	INGWAVUMA K 1	%	UBOMBO K 3	%	NONGOMA K 4	%	SIMLANGE K 2	%	HLABISA K 5	%	UBOMBO N 50	%	NGOTSHE N 51	%	HLABISA N 52	%	S/TOTAL HPSR C	%	OTHER HPSR's	%	TOTAL CAT POP	%
1	ITSHELEJUBA	SH	C2	474	0	0	117	0	72	0	52977	97	44	0	59	0	0	0	0	0	53269	97	1379	3	54647	100
2	BETHESDA	KH	C3	235	2256	16	7223	51	793	6	389	3	219	2	3055	22	167	1	45	0	14146	100	0	0	14146	100
3	OPHANSI	KC	C3	184	64	1	7340	68	0	0	0	0	88	1	3114	29	0	0	0	0	10606	99	130	1	10736	100
4	MADONELA	KC	C3	152	1354	15	5285	59	0	0	0	0	0	0	2233	25	0	0	0	0	8871	98	161	2	9032	100
5	BENEDICTINE	KH	C4	417	64	0	0	0	29190	96	0	0	44	0	0	0	833	3	0	0	30132	99	434	1	30565	100
6	EDENGENI	KC	C4	120	0	0	0	0	8649	100	0	0	0	0	0	0	0	0	0	0	8649	100	0	0	8649	100
7	EKUBUNGAZELENI	KC	C4	164	0	0	0	0	11820	100	0	0	0	0	0	0	0	0	0	0	11820	100	0	0	11820	100
8	HLENGIMPILO	KC	C4	116	0	0	0	0	8361	100	0	0	0	0	0	0	0	0	0	0	8361	100	0	0	8361	100
9	MAPHOPHOMA	KC	C4	317	0	0	0	0	22776	100	0	0	44	0	0	0	0	0	0	0	22819	100	0	0	22819	100
10	KWANJOKO	KC	C4	239	0	0	0	0	17154	100	0	0	44	0	0	0	0	0	0	0	17198	100	0	0	17198	100
11	OSUTHU	KC	C4	251	0	0	0	0	10090	67	0	0	3637	24	0	0	0	0	1267	8	14994	100	0	0	14994	100
12	HLABISA	KH	C5	543	0	0	117	0	2234	9	0	0	16476	66	59	0	0	0	5655	23	24542	98	519	2	25061	100
13	MADWALENI	KC	C5	294	0	0	0	0	72	1	0	0	9640	74	0	0	0	0	3303	25	13015	100	0	0	13015	100
14	MPUKUNYONI	KC	C5	493	0	0	0	0	72	0	0	0	16038	73	0	0	0	0	5520	25	21630	99	245	1	21875	100
15	NKUNDUSI	KC	C5	572	0	0	0	0	0	0	0	0	18799	74	0	0	0	0	6470	26	25269	100	0	0	25269	100
16	INHLWATHINI	KC	C5	263	0	0	59	0	1153	10	0	0	8107	67	0	0	0	0	2760	23	12078	100	0	0	12078	100
17	KWAMSAME	KC	C5	574	0	0	59	0	0	0	0	0	16652	62	0	0	0	0	5746	22	22456	84	4208	16	26664	100
18	NTONDWENI	KC	C5	313	0	0	0	0	0	0	0	0	10254	74	0	0	0	0	3529	26	13783	100	44	0	13827	100
19	MANGUZI	KH	C1	378	23464	94	235	1	0	0	0	0	0	0	59	0	0	0	45	0	23803	95	1165	5	24967	100
20	KWA NDABA	KC	C1	150	9218	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9218	100	0	0	9218	100
21	MOSVOLD	KH	C1	384	23851	96	59	0	72	0	259	1	0	0	0	0	0	0	45	0	24286	98	486	2	24771	100
22	GWALIWENI	KC	C1	92	5930	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5930	100	0	0	5930	100
23	EMANYISENI	KC	C1	185	11796	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11796	100	38	0	11834	100
24	NDUMU	KC	C1	204	12570	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12570	100	0	0	12570	100
25	MSELENI	KH	C3	229	1418	11	8221	62	0	0	0	0	0	0	3525	27	0	0	45	0	13209	100	34	0	13244	100
26	MBAZWANA	KC	C3	195	193	2	7634	66	0	0	0	0	0	0	3290	29	0	0	0	0	11117	97	369	3	11487	100
27	NIBELA	KC	C3	349	0	0	14328	70	0	0	0	0	0	0	6169	30	0	0	0	0	20497	100	0	0	20497	100
28	TSHONGWE	KC	C3	190	0	0	7692	69	0	0	0	0	0	0	3290	30	0	0	0	0	10982	99	103	1	11086	100
	CATCHMENT COMPONENT			8077	92179	19	58367	12	112509	23	53624	11	100085	21	24852	5	1000	0	34430	7	477046	98	9315	2	486361	100
	TOTAL POPULATION			130644	96240		60540		131320		54790		105080		25440		33320		36240		542970					

TABLE 24

NATAL - KWAZULU HEALTH FACILITIES: HPSR "D" LADYSMITH

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	MSINGA K 11	%	EMNAMBIT K 12	%	OKHAHLAM K 13	%	BERGVILL N 84	%	KLIPRIV N 85	%	ESTCOURT N 86	%	WEENEN N 87	%	S/TOTAL HPSR D	%	OTHER HPSR's	%	TOTAL CAT POP	%
1	ESTCOURT	PH	D86	545	0	0	84	0	753	3	1208	4	103	0	20914	73	3791	13	26853	94	1706	6	28559	100
2	LADYSMITH	PH	D85	1475	0	0	75645	53	8283	6	4228	3	46562	33	388	0	271	0	135377	96	6368	4	141746	100
3	EMMAUS	SH	D86	720	0	0	0	0	52713	40	72334	54	0	0	7813	6	271	0	133131	100	207	0	133337	100
4	ESTCOURT	LC	D86	310	0	0	0	0	7530	29	453	2	308	1	13684	53	812	3	22787	88	3181	12	25968	100
5	COLENSO	LC	D86	102	0	0	0	0	0	0	0	0	0	0	4950	100	0	0	4950	100	0	0	4950	100
6	LADYSMITH	LC	D85	674	0	0	13463	20	0	0	302	0	52510	79	0	0	0	0	66275	100	0	0	66275	100
7	CHURCH OF SCOTLAND	KH	D11	216	55076	96	84	0	0	0	0	0	0	0	0	0	1895	3	57056	99	611	1	57667	100
8	COLLESSIE	KC	D11	20	5649	100	0	0	0	0	0	0	0	0	0	0	0	0	5649	100	0	0	5649	100
9	GORDON	KC	D11	20	5649	100	0	0	0	0	0	0	0	0	0	0	0	0	5649	100	0	0	5649	100
10	MANDLENI	KC	D11	20	5649	100	0	0	0	0	0	0	0	0	0	0	0	0	5649	100	0	0	5649	100
11	MFENEBUDE	KC	D11	20	5649	100	0	0	0	0	0	0	0	0	0	0	0	0	5649	100	0	0	5649	100
	CATCHMENT COMPONENT			4122	77671	16	89276	19	69280	14	78526	16	99482	21	47749	10	7040	1	469024	97	12073	3	481097	100
	TOTAL POPULATION			130644	120320		103160		69280		83660		105020		50660		14080		546180					

TABLE 25

NATAL - KWAZULU HEALTH FACILITIES: HPSR "F" NGWELEZANA

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISIRICTS [NUMBERS AND PERCENT]

ID.HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	NGOYE K 15	%	INKANYE K 14	%	NKANDLA K 10	%	MAHLABA K 6	%	NSELENI K 7	%	K/MAPHU K 16	%	L/UMFOL N 56	%	ESHOWE N 58	%	MTUNZIN N 57	%	MTONJAN N 59	%	L/TUGEL N 60	%	S/TOTAL HPSR F	%	OTHER HPSR's	%	TOTAL CAT POP	%
1 EMPANGENI	PH	F56	209	0	0	0	0	75	1	0	0	44	0	0	0	11218	82	201	1	507	4	0	0	0	0	12046	88	1570	12	13616	100
2 ESHOWE	PH	F58	1654	263	0	41885	57	2524	3	501	1	2664	4	50	0	713	1	12334	17	6879	9	779	1	244	0	68837	94	4692	6	73529	100
3 STANGER	PH	F60	1744	2892	3	0	0	188	0	0	0	0	0	10203	11	195	0	3460	4	3075	3	39	0	73375	76	93427	97	2629	3	96057	100
4 RICHARDS BAY	LC	F56	310	0	0	0	0	0	0	0	0	1154	6	0	0	18027	93	0	0	0	0	0	0	0	0	19182	99	224	1	19405	100
5 BALLITO	LC	F60	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1588	100	1588	100	0	0	1588	100
6 EMPANGENI	LC	F56	330	188	1	0	0	0	0	0	0	89	0	0	0	19324	95	251	1	444	2	0	0	0	0	20295	100	99	0	20394	100
7 ESHOWE	LC	F58	175	75	1	4603	55	75	1	0	0	0	0	0	0	0	0	3510	42	0	0	0	0	61	1	8324	100	0	0	8324	100
8 MELMOTH	LC	F59	132	0	0	0	0	301	5	179	3	89	2	0	0	0	0	100	2	0	0	4053	69	61	1	4783	82	1053	18	5837	100
9 SHAKASKRAAL	LC	F60	103	0	0	0	0	0	0	0	0	0	0	398	6	0	0	0	0	0	0	0	0	5682	93	6080	99	57	1	6137	100
0 STANGER	LC	F60	384	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19367	89	19367	89	2311	11	21678	100
1 TUGELA	LC	F60	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2505	100	2505	100	0	0	2505	100
2 APPELSBOSCH	KH	F16	284	0	0	0	0	0	0	0	0	0	0	9357	69	0	0	0	0	32	0	0	0	61	0	9450	70	4075	30	13525	100
3 ECHIBINI	KC	F16	325	0	0	0	0	0	0	0	0	0	0	14086	74	0	0	0	0	0	0	0	0	0	0	14086	74	5052	26	19138	100
4 EMTULWA	KC	F16	183	0	0	0	0	0	0	0	0	0	0	9108	100	0	0	0	0	0	0	0	0	0	0	9108	100	0	0	9108	100
5 ESIDUMBINI	KC	F16	391	0	0	0	0	0	0	0	0	0	0	10452	63	0	0	0	0	0	0	0	0	0	0	10452	63	6107	37	16560	100
6 CATHERINE BOOTH	KH	F14	146	75	1	3866	65	38	1	107	2	0	0	50	1	259	4	0	0	1363	23	0	0	0	0	5759	96	226	4	5984	100
7 MACAMBINI	KC	F57	280	9390	89	0	0	38	0	0	0	222	2	0	0	65	1	0	0	0	0	0	0	61	1	9776	93	725	7	10501	100
NDULINDE	KC	F14	195	0	0	8561	95	38	0	0	0	0	0	100	1	65	1	50	1	63	1	0	0	61	1	8938	99	81	1	9018	100
NTSINGWENI	KC	F57	530	19457	97	46	0	0	0	0	0	44	0	0	0	0	0	351	2	0	0	0	0	0	0	19898	99	201	1	20099	100
SUNDUMBILI	KC	F14	853	3531	10	30378	84	38	0	0	0	0	0	149	0	0	0	501	1	1680	5	0	0	0	0	36277	100	0	0	36277	100
CEZA	KH	F6	364	0	0	0	0	38	0	8377	40	44	0	0	0	65	0	0	0	0	0	0	0	0	0	8524	41	12490	59	21014	100
DLEBE	KC	F6	165	0	0	0	0	0	0	5764	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5764	97	170	3	5934	100
EZIMFABENI	KC	F6	216	0	0	0	0	0	0	7697	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7697	100	0	0	7697	100
ST MARY'S MELMOTH	PH	F59	433	0	0	0	0	0	0	215	1	133	1	0	0	0	0	0	0	0	0	16251	96	61	0	16660	99	219	1	16879	100
EKOMBE	KH	F10	262	0	0	0	0	9455	95	72	1	0	0	0	0	0	0	0	0	0	0	0	0	61	1	9587	96	402	4	9989	100
MFONGOSI	KC	F10	101	0	0	0	0	3805	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3805	100	0	0	3805	100
MTHUNGWENI	KC	F10	139	0	0	0	0	5198	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5198	100	0	0	5198	100
XULU	KC	F10	216	0	0	0	0	8061	99	0	0	0	0	50	1	0	0	0	0	0	0	0	0	0	0	8111	100	28	0	8139	100
MBONGOLWANI	KH	F14	201	0	0	9251	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9251	100	0	0	9251	100
GEZINSILA	KC	F14	35	0	0	1197	81	75	5	0	0	178	12	0	0	0	0	0	0	32	2	0	0	0	0	1481	100	0	0	1481	100
MATHUNGELA	KC	F14	79	0	0	2347	69	1055	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3402	100	0	0	3402	100
NGUDWINI	KC	F14	134	0	0	6030	99	0	0	0	0	0	0	0	0	0	0	0	0	63	1	0	0	0	0	6093	100	0	0	6093	100
OSUNGOLWENI	KC	F14	88	0	0	3406	87	527	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3933	100	0	0	3933	100
SAMUNGU	KC	F14	162	0	0	7456	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7456	100	0	0	7456	100
NKANDLA	KH	F10	456	0	0	46	0	16273	93	107	1	0	0	50	0	0	0	100	1	63	0	0	0	0	0	16640	95	785	5	17424	100
HALAMBU	KC	F10	211	0	0	92	1	7873	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7965	100	0	0	7965	100
NONGAMLANA	KC	F10	308	0	0	276	2	9869	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10145	89	1198	11	11344	100
ESIBHUDENI	KC	F10	99	0	0	0	0	3729	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3729	100	0	0	3729	100

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TABLE 25 (Continued)

NATAL - KWAZULU HEALTH FACILITIES: HPSR "F" NGWELEZANA [CONTINUED]

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	TOT.PAT.	NGOYE K 15	%	INKANYE K 14	%	NKANDLA K 10	%	MAHLABA K 6	%	NSELENI K 7	%	K/MAPHU K 16	%	L/UMFOL N 56	%	ESHOWE N 58	%	MTUNZIN N 57	%	MTONJAN N 59	%	L/TUGEL N 60	%	S/TOTAL HPSR F	%	OTHER HPSR's	%	TOTAL CAT POP	%
39	THALANENI	KC	F10	239	0	0	0	0	8551	94	0	0	0	0	0	0	0	0	100	1	0	0	78	1	0	0	8729	96	319	4	9048	100
40	VUMANHLAMVU	KC	F10	243	0	0	0	0	8927	97	0	0	0	0	0	0	0	0	150	2	0	0	0	0	0	0	9078	99	122	1	9200	100
41	NKONJENI	KH	F6	625	0	0	0	0	113	0	19547	81	44	0	0	0	195	1	201	1	32	0	156	1	0	0	20287	84	3740	16	24027	100
42	NCEMANENI	KC	F6	173	0	0	0	0	0	0	6122	99	89	1	0	0	0	0	0	0	0	0	0	0	0	0	6211	100	0	0	6211	100
43	ULUNDI	KC	F6	339	0	0	0	0	0	0	12100	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12100	99	72	1	12173	100
44	NHLUNGWANE	KC	F6	118	0	0	0	0	0	0	3723	92	44	1	0	0	0	0	0	0	0	0	117	3	0	0	3885	96	166	4	4050	100
45	KWAYANGUYE	KC	F59	163	0	0	0	0	0	0	0	0	7104	99	0	0	65	1	0	0	0	0	39	1	0	0	7208	100	0	0	7208	100
46	KWAMAME	KC	F6	269	0	0	0	0	0	0	5943	43	0	0	0	0	65	0	0	0	0	0	0	0	0	0	6008	44	7667	56	13675	100
47	ZILULWANE	KC	F6	153	0	0	0	0	38	1	5406	98	0	0	0	0	65	1	0	0	0	0	0	0	0	0	5508	100	0	0	5508	100
48	ULUNDI UNIT A	KC	F6	442	0	0	0	0	38	0	15573	97	0	0	0	0	0	0	0	0	0	0	39	0	0	0	15650	98	372	2	16021	100
49	MAKHOSINI	KC	F59	76	0	0	0	0	0	0	2470	92	0	0	0	0	0	0	0	0	0	0	39	1	0	0	2509	94	169	6	2679	100
50	MABEDLANA	KC	F6	141	0	0	0	0	0	0	4976	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4976	99	72	1	5048	100
51	NGWELEZANA	KH	F7	1215	2366	4	138	0	113	0	394	1	34632	65	50	0	3631	7	1053	2	5389	10	351	1	61	0	48178	91	4777	9	52956	100
52	EKUPHUMULENI	KC	F15	179	5484	79	46	1	0	0	0	0	710	10	0	0	0	0	251	4	190	3	39	1	61	1	6781	98	161	2	6943	100
53	LUWAMBA	KC	F7	20	0	0	46	5	0	0	0	0	799	91	0	0	0	0	0	0	32	4	0	0	0	0	877	100	0	0	877	100
54	NGWELEZANA	KC	F7	665	826	3	368	1	75	0	36	0	26951	92	0	0	0	0	0	0	127	0	39	0	0	0	28422	97	1003	3	29426	100
55	NSELENI	KC	F7	375	639	4	552	3	38	0	36	0	12343	75	0	0	389	2	702	4	856	5	156	1	0	0	15710	95	850	5	16560	100
56	THOKOZANI	KC	F15	1271	33017	68	690	1	38	0	251	1	1510	3	149	0	259	1	552	1	7133	15	39	0	367	1	44003	91	4570	9	48574	100
57	DONDOTHA	KC	F7	555	0	0	0	0	0	0	0	0	24154	98	0	0	65	0	100	0	32	0	0	0	0	0	24350	99	338	1	24688	100
58	NOMPONZWANA	KC	F7	286	0	0	0	0	0	0	0	0	12654	100	0	0	0	0	0	0	0	0	0	0	0	0	12654	100	52	0	12706	100
59	NTAMBANANA	KC	F56	153	0	0	0	0	0	0	0	0	6749	99	0	0	0	0	0	0	0	0	0	0	0	0	6749	99	53	1	6802	100
60	PHAPHAMANI	KC	F15	568	20734	97	46	0	0	0	0	0	44	0	0	0	0	0	50	0	159	1	39	0	0	0	21072	98	379	2	21451	100
61	VULINDLELA	KC	F15	299	9127	80	0	0	0	0	0	0	977	9	0	0	0	0	0	0	507	4	0	0	61	1	10673	94	707	6	11379	100
62	UMPHUMULO	KH	F16	304	0	0	0	0	0	0	0	0	0	0	12493	84	0	0	0	0	0	0	0	0	0	0	12493	84	2333	16	14826	100
63	ISITHUNDU	KC	F16	258	0	0	0	0	0	0	0	0	0	0	12841	100	0	0	0	0	0	0	0	0	0	0	12841	100	0	0	12841	100
64	MBHEKAPHANSI	KC	F16	305	0	0	0	0	0	0	0	0	0	0	13986	93	0	0	0	0	0	0	0	0	0	0	13986	93	1001	7	14987	100
65	MTHANDENI	KC	F16	246	0	0	0	0	0	0	0	0	0	0	12145	100	0	0	0	0	0	0	0	0	0	0	12145	100	0	0	12145	100
66	OTIMATI	KC	F16	328	0	0	0	0	0	0	0	0	0	0	15529	100	0	0	0	0	0	0	0	0	0	0	15529	100	0	0	15529	100
67	UNTUNJAMBILI	KH	F16	107	0	0	0	0	75	1	0	0	0	0	4480	84	0	0	251	5	0	0	0	0	0	0	4806	90	551	10	5357	100
68	AMAKHABELA	KC	F10	172	0	0	0	0	6479	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6479	100	0	0	6479	100
69	AMANDLALATHI	KC	F16	87	0	0	0	0	2787	81	0	0	0	0	647	19	0	0	0	0	0	0	0	0	0	0	3435	100	0	0	3435	100
70	EHLANZENI	KC	F16	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5806	100	5806	100
	CATCHMENT COMPONENT			22407	108065	11	121328	12	96544	10	99596	10	133467	13	126373	13	54665	5	24268	2	28657	3	22252	2	103740	10	918955	92	79676	8	998631	100
	TOTAL POPULATION			130644	108140		121420		99520		102460		133600		149020		63160		28680		30020		22720		128300		987040				6513270	

TABLE 26

NATAL - KWAZULU HEALTH FACILITIES : HPSR "G" PIETERMARITZBURG

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

).HEALTH FAC.	CAT	HR/ MD	TOTAL PATS.	EMPUMAL K 18	%	HLANGA K 23	%	VULINDL K 22	%	IMPEN N 75	%	U/BERG N 76	%	MOOIR. N 66	%	UMVOTI N 67	%	KRANS N 68	%	N/HAN N 69	%	PMBURG N 70	%	CAMPER N 71	%	RICHMO N 72	%	IXOPO N 89	%	POLELA N 73	%	LIONSR N 74	%	S/TOTAL HPSR G	%	OTHER HPSR's	%	TOTAL CAT POP	%
CHRIST KING	PH	G89	225	0	0	2099	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	78	1	6149	43	0	0	0	0	8354	59	5829	41	14183	100
GREY'S	PH	G70	1077	0	0	0	0	0	0	159	0	1818	4	418	1	0	0	125	0	1946	5	24900	61	2178	5	2177	5	427	1	0	0	4999	12	39147	96	1775	4	40921	100
GREYTOWN	PH	G67	781	0	0	0	0	0	0	0	0	0	0	119	0	29256	40	501	1	2855	4	0	0	0	0	0	0	0	0	0	0	0	0	32730	45	40654	55	73384	100
NORTHDALE	PH	G70	2515	263	0	0	0	0	0	0	0	0	0	60	0	289	0	0	0	2336	3	65679	86	396	1	1322	2	85	0	209	0	4351	6	74989	98	1280	2	76269	100
ST. ANNE'S	PH	G70	158	0	0	0	0	56	1	53	1	0	0	0	0	0	0	0	0	649	11	3878	67	0	0	78	1	85	1	0	0	185	3	4984	86	807	14	5792	100
DON McKENZIE	PH	G71	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	21	0	0	0	0	0	0	0	0	0	0	56	21	215	79	272	100
RICHMOND	PC	G72	330	0	0	140	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	297	1	25188	98	0	0	0	0	0	0	25625	100	81	0	25706	100
BRUNTVILLE	PC	G66	191	0	0	0	0	0	0	0	0	0	0	10856	95	144	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185	2	11185	98	245	2	11431	100
EAST STREET	PC	G70	1441	11367	14	0	0	37186	46	318	0	0	0	1551	2	144	0	0	0	7136	9	9302	12	693	1	2254	3	4954	6	2301	3	1944	2	79151	99	936	1	80086	100
APPOLINARIS	SH	G23	416	0	0	22877	68	0	0	106	0	7724	**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2733	8	0	0	0	0	33440	100	0	0	33440	100
IXOPO	SC	G89	238	0	0	4058	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9651	57	1464	9	0	0	15173	90	1620	10	16793	100
NOTTINGHAM	SC	G74	132	0	0	0	0	0	0	1802	18	0	0	1312	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7036	69	10150	100	0	0	10150	100
GREY TOWN	LC	G67	269	0	0	0	0	0	0	0	0	0	0	60	0	12280	50	459	2	908	4	84	0	0	0	0	0	0	0	0	0	0	0	13791	56	10887	44	24678	100
HOWICK	LC	G74	257	0	0	0	0	1290	6	265	1	0	0	179	1	0	0	0	0	0	0	337	2	0	0	0	0	0	0	0	0	19718	90	21789	100	49	0	21839	100
MOOI RIVER	LC	G66	131	0	0	0	0	0	0	53	1	0	0	7337	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185	2	7575	96	290	4	7865	100
PIETERMARITZ	LC	G70	3282	1316	1	0	0	36905	29	318	0	0	0	0	0	0	0	0	0	7785	6	66915	53	9406	7	1477	1	0	0	418	0	1851	1	126392	100	204	0	126596	100
GNKUHL-ASISI	KC	G89	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	1	0	0	0	0	85	1	12935	99	13020	100
EDENDALE	KH	G22	1720	947	1	3358	4	37971	42	1643	2	0	0	0	0	361	0	250	0	8304	9	11944	13	11387	13	7152	8	0	0	2510	3	2314	3	88142	97	2487	3	90628	100
CALUZA	KC	G22	972	0	0	0	0	54517	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54517	100	0	0	54517	100
IMBALI	KC	G70	252	0	0	0	0	14134	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14134	100	0	0	14134	100
GQUMENI	KC	G23	154	0	0	10704	100	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10757	100	0	0	10757	100
GWALA	KC	G23	182	0	0	12313	97	0	0	106	1	0	0	0	0	0	0	0	0	0	0	56	0	99	1	78	1	0	0	0	0	0	0	12652	100	0	0	12652	100
MPUMALANGA	KC	G18	1632	80569	89	0	0	0	0	159	0	0	0	0	0	0	0	0	0	0	0	0	0	9703	11	0	0	0	0	0	0	0	0	90432	100	0	0	90432	100
POLELA	KC	G23	442	0	0	30922	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30922	100	0	0	30922	100
SANGOZIMA	KC	G22	377	0	0	140	1	20977	99	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	21145	100	0	0	21145	100
BOTHA'S HILL	SC	G71	626	5157	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	2	112	0	1683	7	155	1	0	0	0	0	0	0	7498	29	18249	71	25746	100
TCHMENT COMPONENT			18049	99620	11	86610	9	203035	22	5034	1	9542	1	21891	2	42475	5	1335	0	32308	3	183322	20	35843	4	39959	4	24170	3	6902	1	42769	5	834815	89	98543	11	933358	100
AL POPULATION				165980		87380		203540		6200		14540		23680		45220		6340		46840		187200		42180		42680		36640		12340		43880		964640							

TABLE 27

NATAL - KWAZULU HEALTH FACILITIES : HPSR "H" DURBAN

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	INDWEDWE K 17	%	EMBUMBUL K 21	%	MLAZI K 20	%	NTUZUMA K 19	%	DURBAN N 81	%	PINETOWN N 82	%	INANDA N 83	%	CHATSWO N 90	%	S/TOTAL HPSR H	%	OTHER HPSR's	%	TOTAL CAT POP	%
1	ADDINGTON	PH	H81	4226	0	0	0	0	119	0	0	0	110891	86	5187	4	448	0	94	0	116740	91	11788	9	128528	100
2	CLAIRWOOD	PH	H81	2460	854	1	37939	39	25483	26	1736	2	24292	25	3792	4	966	1	0	0	95062	97	2655	3	97717	100
3	HILLCREST	PH	H82	84	0	0	0	0	0	0	0	0	0	0	2366	80	0	0	0	0	2366	80	594	20	2960	100
4	KING EDWARD VIII	PH	H81	7884	13151	4	57151	17	32768	10	28116	8	56864	17	19081	6	28936	9	0	0	236067	70	98905	30	334972	100
5	R. K. KHAN	PH	H90	5790	37	0	81	0	89	0	0	0	16415	9	9374	5	5622	3	141118	78	172735	95	8263	5	180998	100
6	WENTHWORTH	PH	H81	603	74	0	726	3	1576	7	651	3	9511	44	273	1	828	4	0	0	13639	63	7894	37	21533	100
7	McCORD ZULU	PH	H81	2095	1263	2	3310	5	4401	6	10571	15	33431	49	2700	4	4794	7	0	0	60469	88	8090	12	68559	100
8	ST. AIDENS	PH	H81	531	0	0	161	1	0	0	248	2	13321	81	182	1	310	2	0	0	14223	87	2178	13	16400	100
9	ST. MARY'S (MAR)	PH	H82	1701	5758	7	10736	13	297	0	248	0	602	1	17383	22	138	0	281	0	35442	44	44525	56	79967	100
10	BEATRICE STREET	PC	H81	1293	223	1	161	0	0	0	155	0	28733	71	637	2	2173	5	0	0	32082	79	8591	21	40672	100
11	PHOENIX	PC	H83	1806	0	0	0	0	0	0	0	0	50619	97	0	0	1345	3	0	0	51964	100	0	0	51964	100
12	NEWLANDS EAST	PC	H81	241	186	3	81	1	0	0	1705	24	5042	71	0	0	0	0	0	0	7013	99	49	1	7063	100
13	OSINDISWENI	SH	H83	802	12965	43	0	0	0	0	62	0	1576	5	152	1	10864	36	0	0	25619	85	4632	15	30251	100
14	KWA DABEKA	SC	H82	2182	1263	2	565	1	59	0	217	0	1031	1	52937	67	310	0	0	0	56383	72	22297	28	78680	100
15	TONGAAT	SC	H83	574	483	2	0	0	0	0	217	1	0	0	0	0	17486	84	0	0	18186	87	2672	13	20858	100
16	AMANZIMTOTI	LC	H81	395	0	0	16790	76	30	0	0	0	5042	23	0	0	34	0	0	0	21896	99	304	1	22200	100
17	DUFFS ROAD	LC	H83	43	0	0	0	0	0	0	0	0	0	0	0	0	1483	100	0	0	1483	100	0	0	1483	100
18	DURBAN	LC	H81	8027	2526	1	12108	5	18554	7	18785	7	84651	33	7705	3	39007	15	61503	24	244841	97	8318	3	253159	100
19	ISIPINGO	LC	H81	220	0	0	888	13	327	5	0	0	5586	82	0	0	0	0	0	0	6801	99	49	1	6850	100
20	KINGSBURGH	LC	H81	418	0	0	16871	74	0	0	0	0	5987	26	0	0	0	0	0	0	22858	100	0	0	22858	100
21	KLOOF	LC	H82	219	483	7	161	2	0	0	0	0	0	0	5946	83	0	0	0	0	6590	92	607	8	7197	100
22	NEW GERMANY	LC	H82	169	0	0	323	6	0	0	0	0	917	17	3762	71	207	4	0	0	5208	99	56	1	5264	100
23	OTTAWA	LC	H83	54	0	0	0	0	0	0	0	0	0	0	0	0	1862	100	0	0	1862	100	0	0	1862	100
24	QUEENSBURG	LC	H81	227	0	0	0	0	89	1	0	0	29	0	6249	91	138	2	0	0	6505	95	358	5	6863	100
25	PINETOWN	LC	H82	1161	669	2	0	0	178	0	837	2	688	2	24724	60	862	2	468	1	28425	69	12699	31	41124	100
26	REDCLIFF	LC	H83	168	1337	23	0	0	0	0	0	0	57	1	0	0	4484	76	0	0	5878	100	0	0	5878	100
27	SHALLCROSS	LC	H90	418	0	0	0	0	30	0	0	0	0	0	30	0	0	0	12874	98	12934	99	152	1	13086	100

CONTINUED NEXT PAGE

TABLE 27 (Continued)

NATAL - KWAZULU HEALTH FACILITIES : HPSR "H" DURBAN [CONTINUED]

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO. HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	INDWEDWE K 17	%	EMBUMBUL K 21	%	MLAZI K 20	%	NTUZUMA K 19	%	DURBAN N 81	%	PINETOWN N 82	%	INANDA N 83	%	CHATSWO N 90	%	S/TOTAL HPSR H	%	OTHER HPSR's	%	TOTAL CAT POP	%
28 UMHLANGA	LC	H83	158	446	9	0	0	0	0	248	5	3151	67	0	0	690	15	0	0	4535	97	159	3	4693	100
29 VERULAM	LC	H83	389	2080	16	0	0	0	0	31	0	716	5	0	0	10588	79	0	0	13416	100	0	0	13416	100
30 WESTVILLE	LC	H81	254	37	0	0	0	0	0	0	0	86	1	7402	96	0	0	0	0	7525	98	155	2	7680	100
31 KWAMASHU P/CLINIC	KC	H19	2628	446	1	0	0	0	0	67795	83	0	0	0	0	13209	16	0	0	81450	99	495	1	81945	100
32 GOODWINS	KC	H19	553	74	0	81	0	89	1	15035	86	29	0	30	0	1035	6	0	0	16372	94	1090	6	17463	100
33 KWA SIMAMA	KC	H19	290	1152	12	0	0	30	0	868	9	5328	58	91	1	1242	13	0	0	8710	94	549	6	9259	100
34 NDWEDWE	KC	H17	600	22290	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22290	100	0	0	22290	100
35 RYDALVALE	KC	H19	558	0	0	0	0	0	0	0	0	15040	93	0	0	1104	7	0	0	16143	100	42	0	16185	100
36 SIVANANDA	KC	H83	54	0	0	0	0	0	0	0	0	0	0	0	0	1862	100	0	0	1862	100	0	0	1862	100
37 MOLWENI	KC	H17	321	11814	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11814	100	28	0	11842	100
38 MONTEBELLO	KH	H17	327	6167	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6167	34	11776	66	17943	100
39 KWA NYUSWA	KC	H17	341	11517	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11517	89	1365	11	12882	100
40 MOTALA-THAFAMASI	KC	H17	259	9622	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9622	100	0	0	9622	100
41 WOSIYANA	KC	H17	319	11665	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11665	98	208	2	11873	100
42 PRINCE MSHIYENI	KH	H20	1109	334	1	21633	43	19328	38	62	0	86	0	30	0	0	0	0	0	41473	82	8843	18	50316	100
43 UMLAZI "D"	KC	H20	311	37	0	5650	39	4460	31	62	0	0	0	0	0	0	0	0	0	10210	70	4397	30	14607	100
44 EKUPHILENI	KC	H20	743	0	0	484	2	21468	94	0	0	0	0	0	0	0	0	0	0	21953	96	878	4	22830	100
45 MAGABHENI	KC	H21	279	0	0	10655	56	59	0	310	2	0	0	0	0	0	0	0	0	11025	58	8027	42	19052	100
46 UMLAZI U-21	KC	H20	401	0	0	7184	44	9247	56	0	0	0	0	0	0	0	0	0	0	16432	100	0	0	16432	100
47 UMLAZI P/CLINIC	KC	H20	535	74	0	2018	10	10972	52	124	1	143	1	30	0	0	0	0	0	13362	63	7757	37	21119	100
48 UMZOMUHLE "H"	KC	H20	610	149	1	9364	38	13589	56	248	1	0	0	0	0	0	0	0	0	23349	96	1100	4	24449	100
49 ST. ANNE'S	KH	H20	585	0	0	10009	43	12786	54	0	0	458	2	0	0	0	0	0	0	23254	99	237	1	23491	100
CATCHMENT COMPONENT			55415	119177	6	225131	11	176030	9	148331	7	480319	24	170064	9	152027	8	216337	11	1687417	85	292781	15	1980198	100
TOTAL POPULATION			130644	146780		232800		177100		148920		483900		171308		155200		217272		1733280				6513270	100

TABLE 28

NATAL - KWAZULU HEALTH FACILITIES: HPSR "I" PORT SHEPSTONE

CATCHMENT POPULATION ACCORDING TO MAGISTERIAL DISTRICTS [NUMBERS AND PERCENT]

NO. HEALTH FACILITY	CAT	HR/MD	TOTAL PATIENTS	VULAMEH K 24	%	EMZUMBE K 25	%	EZINGOL K 26	%	MTCURRIE N 77	%	ALFRED N 78	%	PSHEPS N 79	%	UMZINTO N 80	%	S/TOTAL HPSR I	%	OTHER HPSR's	%	TOTAL CAT POP	%
1 USHER MEMORIAL	PH	I77	146	0	0	0	0	0	0	17610	97	0	0	0	0	0	0	17610	97	454	3	18064	100
2 G. J. CROOKES	PH	I80	1425	23393	33	10240	14	0	0	165	0	0	0	590	1	27635	39	62023	87	8940	13	70963	100
3 ST. ANDREWS	PH	I78	209	0	0	54	1	546	11	165	3	4001	83	0	0	0	0	4765	99	29	1	4794	100
4 TAYLOR BEQUEST	PH	I77	210	0	0	0	0	0	0	3127	100	0	0	0	0	0	0	3127	100	0	0	3127	100
5 MURCHISON	SH	I79	1143	0	0	485	0	34932	18	0	0	518	0	156514	81	1478	1	193927	100	212	0	194139	100
6 BENDIGO	LC	I79	192	0	0	4042	17	546	2	0	0	0	0	18483	79	197	1	23268	100	0	0	23268	100
7 CRAGIEBURN	LC	I80	184	2610	28	0	0	0	0	0	0	0	0	0	0	5862	63	8472	91	888	9	9360	100
8 HARDING	LC	I78	170	0	0	0	0	1274	30	0	0	2942	69	0	0	0	0	4216	99	28	1	4244	100
9 KOKSSTAD	LC	I77	66	0	0	0	0	0	0	8558	98	0	0	197	2	0	0	8755	100	0	0	8755	100
10 MARBURG	LC	I79	222	0	0	269	1	2365	6	0	0	188	0	37162	93	49	0	40035	100	0	0	40035	100
11 MARGATE	LC	I79	623	0	0	0	0	16738	14	0	0	0	0	101852	86	296	0	118886	100	186	0	119072	100
12 MATATIELE	LC	I77	140	0	0	0	0	0	0	1646	100	0	0	0	0	0	0	1646	100	0	0	1646	100
13 PORT SHEPSTONE	LC	I79	257	0	0	916	2	2911	7	0	0	118	0	34999	86	1478	4	40422	99	259	1	40681	100
14 SCOTTSBURGH	LC	I80	143	0	0	0	0	0	0	0	0	0	0	0	0	6896	100	6896	100	0	0	6896	100
15 SHELLEY BEACH	LC	I25	71	0	0	108	1	6368	54	329	3	24	0	4916	42	0	0	11744	100	0	0	11744	100
16 UMKOMAAS	LC	I80	86	0	0	0	0	0	0	0	0	0	0	0	0	4089	100	4089	100	0	0	4089	100
17 UMTENTWENI	LC	I79	99	0	0	485	3	0	0	0	0	24	0	15730	97	0	0	16239	100	57	0	16296	100
18 UMZINTO (N)	LC	I80	243	3528	29	2371	19	0	0	0	0	0	0	0	0	5665	46	11565	95	668	5	12233	100
19 ASSISI	KH	I25	304	48	0	14714	84	0	0	0	0	0	0	787	4	0	0	15548	89	1995	11	17543	100
20 HLOKOZI	KC	I24	240	11117	96	162	1	0	0	0	0	0	0	0	0	345	3	11623	100	0	0	11623	100
21 NDELU	KC	I25	442	48	0	23067	99	182	1	0	0	0	0	0	0	0	0	23298	100	99	0	23397	100
22 MORRISONS	KC	I25	282	0	0	13312	69	364	2	0	0	0	0	5506	28	148	1	19329	100	85	0	19415	100
23 NTIMBANKULU	KC	I25	299	0	0	15630	96	0	0	0	0	0	0	0	0	0	0	15630	96	619	4	16249	100
24 NYANGWINI	KC	I25	445	0	0	23822	98	0	0	0	0	0	0	590	2	0	0	24412	100	0	0	24412	100
25 PUNGASHE	KC	I25	362	0	0	18702	94	0	0	0	0	0	0	787	4	49	0	19538	98	403	2	19940	100
26 ST FAITH'S	KC	I25	300	97	1	14821	82	182	1	0	0	0	0	2163	12	0	0	17263	95	854	5	18117	100
27 PORT SHEPSTONE	PH	I79	1540	0	0	17301	8	82964	38	165	0	565	0	116796	53	1084	0	218873	100	662	0	219536	100
28 DUDUDU (P/MSHIYENI)	KC	I24	272	13147	100	0	0	0	0	0	0	0	0	0	0	0	0	13147	100	0	0	13147	100
29 JOLIVET (P/MSHIYENI)	KC	I24	377	15563	86	485	3	0	0	0	0	0	0	0	0	1823	10	17871	98	325	2	18196	100
CATCHMENT COMPONENT			10492	69552	7	160987	16	149371	15	31764	3	8379	1	497070	50	57093	6	974215	98	16764	2	990979	100
TOTAL POPULATION			130644	75980		184000		159560		43120		8520		529120		93940		1094240				6513270	

TABLE 29

NATAL-KWAZULU HEALTH FACILITIES: HPSR "A" NEWCASTLE

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	DUNDEE	PH	A61	27336	1091	0	14167	0	144	29	0	42767	11
2	NEWCASTLE	PH	A62	17320	455	0	0	61	56	29	0	17921	5
3	NIEMEYER MEMORIAL	PH	A64	31352	52	0	0	0	0	0	0	31404	8
4	DANHAUSER	LC	A65	15248	0	167	0	0	0	29	0	15443	4
5	DUNDEE	LC	A61	19246	724	0	0	0	0	0	165	20134	5
6	NEWCASTLE	LC	A62	19536	298	0	0	0	0	0	197	20031	5
7	MADADENI	KH	A8	53049	355	144	770	72	0	0	0	54390	15
8	MADADENI NO.1 CLINIC	KC	A8	37085	0	72	282	36	28	0	0	37503	10
9	MADADENI NO.5 CLINIC	KC	A8	30116	0	0	0	0	0	842	0	30958	8
10	MADADENI NO.7 CLINIC	KC	A8	27933	0	144	0	50	0	0	0	28127	8
11	OSIZWENI NO.1 CLINIC	KC	A8	29551	99	0	0	0	0	0	0	29650	8
12	OSIZWENI NO.2 CLINIC	KC	A8	44987	0	0	0	0	0	0	0	44987	12
	CATCHMENT COMPONENT			352759	3074	527	15219	218	229	928	361	373315	100
	PERCENT			94.5	0.8	0.1	4.1	0.1	0.1	0.2	0.1	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 30

NATAL-KWAZULU HEALTH FACILITIES: HPSR "B" VRYHEID

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	VRYHEID	PH	B53	1609	49458	6621	0	61	0	0	0	57749	21
2	NONDWENI	SC	89	0	17730	0	0	0	0	0	0	17730	7
3	PAULPIETERSBURG	LC	855	0	35821	0	0	0	0	57	0	35879	13
4	VRYHEID	LC	B53	184	17838	167	0	0	42	0	0	18231	7
5	CHARLES JOHNSON	KH	89	574	26412	144	200	339	0	0	0	27669	10
6	ISANDLWANA	KC	89	58	10184	0	0	0	0	0	0	10242	4
7	MANGENI	KC	89	0	6391	0	0	0	0	0	0	6391	2
8	MONDLO NO. 1	KC	89	0	24962	0	0	38	0	0	0	25000	9
9	MONDLO NO. 2	KC	89	0	33733	72	0	0	0	0	0	33805	13
10	NKANDE	KC	89	588	6958	0	0	0	0	57	0	7603	3
11	NTABABOMVU	KC	89	125	13497	167	0	0	78	0	0	13866	5
12	MOUNTAIN VIEW	PH	B53	0	298	3714	0	179	0	29	0	4220	2
13	SILOAH MISSION	PH	B53	0	0	3476	0	50	0	0	0	3526	1
14	MPUNGAMHLOPE (NKONJENI)	KC	B54	0	6311	144	0	967	0	0	0	7422	3
	CATCHMENT COMPONENT			3138	249593	14505	200	1634	119	143	0	269331	100
	PERCENT			1.2	92.7	5.4	0.1	0.6	0.0	0.1	0.0	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 31

NATAL-KWAZULU HEALTH FACILITIES: HPSR "C" BETHESDA

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	ITSHELEJUBA	SH	C2	0	1379	53269	0	0	0	0	0	54647	11
2	BETHESDA	KH	C3	0	0	14146	0	0	0	0	0	14146	3
3	OPHANSI	KC	C3	0	0	10606	0	130	0	0	0	10736	2
4	MADONELA	KC	C3	0	0	8871	0	161	0	0	0	9032	2
5	BENEDICTINE	KH	C4	0	398	30132	0	36	0	0	0	30565	6
6	EDENGENI	KC	C4	0	0	8649	0	0	0	0	0	8649	2
7	EKUBUNGAZELENI	KC	C4	0	0	11820	0	0	0	0	0	11820	2
8	HLENGIMPILO	KC	C4	0	0	8361	0	0	0	0	0	8361	2
9	MAPHOPHOMA	KC	C4	0	0	22819	0	0	0	0	0	22819	5
10	KWANJOKO	KC	C4	0	0	17198	0	0	0	0	0	17198	4
11	OSUTHU	KC	C4	0	0	14994	0	0	0	0	0	14994	3
12	HLABISA	KH	C5	0	0	24542	0	519	0	0	0	25061	5
13	MADWALENI	KC	C5	0	0	13015	0	0	0	0	0	13015	3
14	MPUKUNYONI	KC	C5	0	0	21630	0	245	0	0	0	21875	4
15	NKUNDUSI	KC	C5	0	0	25269	0	0	0	0	0	25269	5
16	INHLWATHINI	KC	C5	0	0	12078	0	0	0	0	0	12078	2
17	KWAMSAME	KC	C5	0	0	22456	0	4179	0	29	0	26664	5
18	NTONDWENI	KC	C5	0	0	13783	0	44	0	0	0	13827	3
19	MANGUZI	KH	C1	1072	0	23803	0	63	0	29	0	24967	5
20	KWA NDABA	KC	C1	0	0	9218	0	0	0	0	0	9218	2
21	MOSVOLD	KH	C1	0	99	24286	103	212	72	0	0	24771	5
22	GWALIWENI	KC	C1	0	0	5930	0	0	0	0	0	5930	1
23	EMANYISENI	KC	C1	0	0	11796	0	38	0	0	0	11834	2
24	NDUMU	KC	C1	0	0	12570	0	0	0	0	0	12570	3
25	MSELENI	KH	C3	0	0	13209	0	0	0	34	0	13244	3
26	MBAZWANA	KC	C3	0	0	11117	0	104	0	69	197	11487	2
27	NIBELA	KC	C3	0	0	20497	0	0	0	0	0	20497	4
28	TSHONGWE	KC	C3	0	0	10982	0	0	0	103	0	11086	2
	CATCHMENT COMPONENT			1072	1876	477046	103	5730	72	264	197	486361	100
	PERCENT			0.2	0.4	98.1	0.0	1.2	0.0	0.1	0.0	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 32

NATAL-KWAZULU HEALTH FACILITIES: HPSR "D" LADYSMITH

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	ESTCOURT	PH	D86	0	0	0	26853	46	1405	59	197	28559	6
2	LADYSMITH	PH	D85	6238	0	0	135377	0	130	0	0	141746	29
3	EMMAUS	SH	D86	0	0	0	133131	61	60	86	0	133337	28
4	ESTCOURT	LC	D86	0	0	0	22787	0	3181	0	0	25968	5
5	COLENSO	LC	D86	0	0	0	4950	0	0	0	0	4950	1
6	LADYSMITH	LC	D85	0	0	0	66275	0	0	0	0	66275	14
7	CHURCH OF SCOTLAND	KH	D11	232	0	0	57056	36	144	199	0	57667	12
8	COLLESSIE	KC	D11	0	0	0	5649	0	0	0	0	5649	1
9	GORDON	KC	D11	0	0	0	5649	0	0	0	0	5649	1
10	MANDLENI	KC	D11	0	0	0	5649	0	0	0	0	5649	1
11	MFENEBUDE	KC	D11	0	0	0	5649	0	0	0	0	5649	1
	CATCHMENT COMPONENT			6470	0	0	469024	143	4920	344	197	481097	100
	PERCENT			1.3	0.0	0.0	97.5	0.0	1.0	0.1	0.0	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 33

NATAL-KWAZULU HEALTH FACILITIES: HPSR "F" NGWELEZANA

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	EMPANGENI	PH	F56	0	199	1036	205	12046	130	0	0	13616	1
2	ESHOWE	PH	F58	58	624	3133	0	68837	130	354	393	73529	7
3	STANGER	PH	F60	0	0	506	0	93427	491	1189	443	96057	10
4	RICHARDS BAY	LC	F56	51	0	0	0	19182	0	172	0	19405	2
5	BALLITO	LC	F60	0	0	0	0	1588	0	0	0	1588	0
6	EMPANGENI	LC	F56	0	0	0	0	20295	99	0	0	20394	2
7	ESHOWE	LC	F58	0	0	0	0	8324	0	0	0	8324	1
8	MELMOTH	LC	F59	0	512	117	0	4783	370	0	54	5837	1
9	SHAKASKRAAL	LC	F60	0	0	0	0	6080	0	57	0	6137	1
10	STANGER	LC	F60	0	0	0	0	19367	0	2311	0	21678	2
11	TUGELA	LC	F60	0	0	0	0	2505	0	0	0	2505	0
12	APPELSBOSCH	KH	F16	0	0	0	0	9450	1326	2749	0	13525	1
13	ECHIBINI	KC	F16	0	0	0	0	14086	4931	121	0	19138	2
14	EMTULWA	KC	F16	0	0	0	0	9108	0	0	0	9108	1
15	ESIDUMBINI	KC	F16	0	0	0	0	10452	0	6107	0	16560	2
16	CATHERINE BOOTH	KH	F14	0	0	226	0	5759	0	0	0	5984	1
17	MACAMBINI	KC	F57	51	0	0	0	9776	28	646	0	10501	1
18	NDULINDE	KC	F14	0	0	0	0	8938	0	81	0	9018	1
19	NTSINGWENI	KC	F57	0	0	201	0	19898	0	0	0	20099	2
20	SUNDUMBILI	KC	F14	0	0	0	0	36277	0	0	0	36277	4
21	CEZA	KH	F6	536	8823	3100	0	8524	0	31	0	21014	2
22	DLEBE	KC	F6	70	99	0	0	5764	0	0	0	5934	1
23	EZIMFABENI	KC	F6	0	0	0	0	7697	0	0	0	7697	1
24	ST MARY'S MELMOTH	PH	F59	0	175	44	0	16660	0	0	0	16879	2
25	EKOMBE	KH	F10	0	260	72	0	9587	70	0	0	9989	1
26	MFONGOSI	KC	F10	0	0	0	0	3805	0	0	0	3805	0
27	MTHUNGWENI	KC	F10	0	0	0	0	5198	0	0	0	5198	1
28	XULU	KC	F10	0	0	0	0	8111	28	0	0	8139	1
29	MBONGOLWANI	KH	F14	0	0	0	0	9251	0	0	0	9251	1
30	GEZINSILA	KC	F14	0	0	0	0	1481	0	0	0	1481	0
31	MATHUNGELA	KC	F14	0	0	0	0	3402	0	0	0	3402	0
32	NGUDWINI	KC	F14	0	0	0	0	6093	0	0	0	6093	1
33	OSUNGOLWENI	KC	F14	0	0	0	0	3933	0	0	0	3933	0
34	SAMUNGU	KC	F14	0	0	0	0	7456	0	0	0	7456	1
35	NKANDLA	KH	F10	0	595	45	103	16640	42	0	0	17424	2
36	HALAMBU	KC	F10	0	0	0	0	7965	0	0	0	7965	1
37	NONGAMLANA	KC	F10	0	1084	0	0	10145	83	31	0	11344	1
38	ESIBHUDENI	KC	F10	0	0	0	0	3729	0	0	0	3729	0
39	THALANENI	KC	F10	35	151	0	103	8729	0	30	0	9048	1
40	VUMANHLAMVU	KC	F10	122	0	0	0	9078	0	0	0	9200	1
41	NKONJENI	KH	F6	35	1467	1202	254	20287	380	304	99	24027	2
42	NCEMANENI	KC	F6	0	0	0	0	6211	0	0	0	6211	1
43	ULUNDI	KC	F6	0	0	72	0	12100	0	0	0	12173	1
44	NHLUNGWANE	KC	F6	0	35	131	0	3885	0	0	0	4050	0
45	KWAYANGUYE	KC	F59	0	0	0	0	7208	0	0	0	7208	1

TABLE 33 (Continued)

NATAL-KWAZULU HEALTH FACILITIES: HPSR "F" NGWELEZANA

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]
[CONTINUED]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
46	KWAMAME	KC	F6	0	52	7586	0	6008	0	30	0	13675	1
47	ZILULWANE	KC	F6	0	0	0	0	5508	0	0	0	5508	1
48	ULUNDI UNIT A	KC	F6	0	199	144	0	15650	0	29	0	16021	2
49	MAKHOSINI	KC	F59	0	169	0	0	2509	0	0	0	2679	0
50	MABEDLANA	KC	F6	0	0	72	0	4976	0	0	0	5048	1
51	NGWELEZANA	KH	F7	0	87	4399	151	48178	60	81	0	52956	5
52	EKUPHUMULENI	KC	F15	0	0	161	0	6781	0	0	0	6943	1
53	LUWAMBA	KC	F7	0	0	0	0	877	0	0	0	877	0
54	NGWELEZANA	KC	F7	58	0	904	0	28422	42	0	0	29426	3
55	NSELENI	KC	F7	0	0	850	0	15710	0	0	0	16560	2
56	THOKOZANI	KC	F15	51	407	3352	0	44003	84	283	393	48574	5
57	DONDOTHA	KC	F7	0	0	173	84	24350	81	0	0	24688	2
58	NOMPONZWANA	KC	F7	0	52	0	0	12654	0	0	0	12706	1
59	NTAMBANANA	KC	F56	0	0	0	0	6749	53	0	0	6802	1
60	PHAPHAMANI	KC	F15	51	0	299	0	21072	0	29	0	21451	2
61	VULINDLELA	KC	F15	145	156	332	0	10673	0	74	0	11379	1
62	UMPHUMULO	KH	F16	0	0	0	0	12493	2333	0	0	14826	1
63	ISITHUNDU	KC	F16	0	0	0	0	12841	0	0	0	12841	1
64	MBHEKAPHANSI	KC	F16	0	0	0	0	13986	1001	0	0	14987	2
65	MTHANDENI	KC	F16	0	0	0	0	12145	0	0	0	12145	1
66	OTIMATI	KC	F16	0	0	0	0	15529	0	0	0	15529	2
67	UNTUNJAMBILI	KH	F16	0	0	0	84	4806	467	0	0	5357	1
68	AMAKHABELA	KC	F10	0	0	0	0	6479	0	0	0	6479	1
69	AMANDLALATHI	KC	F16	0	0	0	0	3435	0	0	0	3435	0
70	EHLANZENI	KC	F16	0	0	0	5806	0	0	0	0	5806	1
	CATCHMENT COMPONENT			1265	15146	28157	6789	918955	12228	14709	1381	998631	100
	PERCENT			0.1	1.5	2.8	0.7	92.0	1.2	1.5	0.1	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 34

NATAL-KWAZULU HEALTH FACILITIES: HPSR "G" PIETERMARITZBURG

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	CHRIST THE KING	PH	G89	0	0	0	0	39	8354	30	5760	14183	2
2	GREY'S	PH	G70	337	0	0	442	61	39147	327	607	40921	4
3	GREYTOWN	PH	G67	0	0	0	30480	10174	32730	0	0	73384	8
4	NORTHDALE	PH	G70	594	0	0	448	61	74989	177	0	76269	8
5	ST. ANNE'S	PH	G70	125	99	0	254	0	4984	0	329	5792	1
6	DON McKENZIE	PH	G71	0	0	0	0	0	56	215	0	272	0
7	RICHMOND	PC	G72	0	0	0	0	0	25625	81	0	25706	3
8	BRUNTVILLE	PC	G66	51	0	0	194	0	11185	0	0	11431	1
9	EAST STREET	PC	G70	0	256	0	433	122	79151	124	0	80086	9
10	ST. APPOLINARIS	SH	G23	0	0	0	0	0	33440	0	0	33440	4
11	IXOPO	SC	G89	0	0	0	0	0	15173	0	1620	16793	2
12	NOTTINGHAM ROAD	SC	G74	0	0	0	0	0	10150	0	0	10150	1
13	GREY TOWN	LC	G67	0	0	0	8781	2105	13791	0	0	24678	3
14	HOWICK	LC	G74	0	0	0	0	0	21789	0	49	21839	2
15	MOOI RIVER	LC	G66	0	0	0	97	0	7575	29	165	7865	1
16	PIETERMARITZBURG	LC	G70	0	0	0	0	0	126392	204	0	126596	14
17	GCINOKUHLE (ASSISI)	KC	G89	0	0	0	0	0	85	0	12935	13020	1
18	EDENDALE	KH	G22	211	52	72	1620	161	88142	371	0	90628	10
19	CALUZA	KC	G22	0	0	0	0	0	54517	0	0	54517	6
20	IMBALI	KC	G70	0	0	0	0	0	14134	0	0	14134	2
21	GQUMENI	KC	G23	0	0	0	0	0	10757	0	0	10757	1
22	GWALA	KC	G23	0	0	0	0	0	12652	0	0	12652	1
23	MPUMALANGA	KC	G18	0	0	0	0	0	90432	0	0	90432	10
24	POLELA	KC	G23	0	0	0	0	0	30922	0	0	30922	3
25	SANGOZIMA	KC	G22	0	0	0	0	0	21145	0	0	21145	2
26	BOTHA'S HILL	SC	G71	0	0	0	0	38	7498	18162	49	25746	3
	CATCHMENT COMPONENT			1319	407	72	42750	12761	834815	19719	21514	933358	100
	PERCENT			0.1	0.0	0.0	4.6	1.4	89.4	2.1	2.3	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 35

NATAL-KWAZULU HEALTH FACILITIES: HPSR "H" DURBAN

CATCHMENT POPULATION ACCORDING TO HPSRs [NUMBERS AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	ADDINGTON	PH	H81	51	199	0	103	1901	2470	116740	7065	128528	6
2	CLAIRWOOD	PH	H81	0	0	0	0	0	684	95062	1970	97717	5
3	HILLCREST	PH	H82	0	0	0	0	0	594	2366	0	2960	0
4	KING EDWARD VIII	PH	H81	949	2432	20196	3799	12347	19305	236067	39876	334972	17
5	R. K. KHAN	PH	H90	442	0	0	0	3392	541	172735	3888	180998	9
6	WENTHWORTH	PH	H81	283	355	587	719	1901	2242	13639	1809	21533	1
7	McCORD ZULU	PH	H81	0	298	0	0	2915	3153	60469	1724	68559	3
8	ST. AIDENS	PH	H81	0	0	0	0	1844	137	14223	197	16400	1
9	ST. MARY'S (MARRIANHILL)	PH	H82	35	398	493	1739	2106	34869	35442	4885	79967	4
10	BEATRICE STREET	PC	H81	831	99	0	1092	3073	936	32082	2560	40672	2
11	PHOENIX	PC	H83	0	0	0	0	0	0	51964	0	51964	3
12	NEWLANDS EAST	PC	H81	0	0	0	0	0	0	7013	49	7063	0
13	OSINDISWENI	SH	H83	0	0	0	0	4632	0	25619	0	30251	2
14	KWA DABEKA	SC	H82	103	0	304	1471	948	15500	56383	3971	78680	4
15	TONGAAT	SC	H83	0	0	45	0	2627	0	18186	0	20858	1
16	AMANZIMTOTI	LC	H81	51	0	0	0	0	105	21896	148	22200	1
17	DUFFS ROAD	LC	H83	0	0	0	0	0	0	1483	0	1483	0
18	DURBAN	LC	H81	580	256	188	989	773	2659	244841	2874	253159	13
19	ISIPINGO	LC	H81	0	0	0	0	0	0	6801	49	6850	0
20	KINGSBURGH	LC	H81	0	0	0	0	0	0	22858	0	22858	1
21	KLOOF	LC	H82	0	0	0	0	0	607	6590	0	7197	0
22	NEW GERMANY	LC	H82	0	0	0	0	0	56	5208	0	5264	0
23	OTTAWA	LC	H83	0	0	0	0	0	0	1862	0	1862	0
24	QUEENSBURG	LC	H81	0	0	0	0	0	210	6505	148	6863	0
25	PINETOWN	LC	H82	0	0	0	0	0	10543	28425	2156	41124	2
26	REDCLIFF	LC	H83	0	0	0	0	0	0	5878	0	5878	0
27	SHALLCROSS	LC	H90	0	0	0	0	100	53	12934	0	13086	1
28	UMHLANGA	LC	H83	0	0	0	0	50	109	4535	0	4693	0
29	VERULAM	LC	H83	0	0	0	0	0	0	13416	0	13416	1
30	WESTVILLE	LC	H81	0	0	0	0	50	105	7525	0	7680	0
31	KWA MASHU POLYCLINIC	KC	H19	0	0	72	0	0	78	81450	345	81945	4
32	GOODWINS	KC	H19	0	52	0	0	596	0	16372	443	17463	1
33	KWA SIMAMA	KC	H19	0	0	0	0	50	105	8710	393	9259	0
34	NDWEDWE	KC	H17	0	0	0	0	0	0	22290	0	22290	1
35	RYDALVALE	KC	H19	0	0	0	0	0	42	16143	0	16185	1
36	SIVANANDA	KC	H83	0	0	0	0	0	0	1862	0	1862	0
37	MOLWENI	KC	H17	0	0	0	0	0	28	11814	0	11842	1
38	MONTEBELLO	KH	H17	0	0	0	0	3866	7860	6167	49	17943	1
39	KWA NYUSWA	KC	H17	0	0	0	0	977	388	11517	0	12882	1
40	MOTALA (THAFAMASI)	KC	H17	0	0	0	0	0	0	9622	0	9622	0
41	WOSIYANA	KC	H17	0	0	0	0	50	158	11665	0	11873	1
42	PRINCE MSHIYENI	KH	H20	292	52	297	489	1343	1326	41473	5044	50316	3
43	UMLAZI "D"	KC	H20	0	199	409	200	286	540	10210	2765	14607	1
44	EKUPHILENI	KC	H20	0	0	0	0	182	249	21953	447	22830	1
45	MAGABHENI	KC	H21	0	0	0	0	0	0	11025	8027	19052	1
46	UMLAZI U-21	KC	H20	0	0	0	0	0	0	16432	0	16432	1
47	UMLAZI POLYCLINIC	KC	H20	639	151	72	488	645	724	13362	5039	21119	1
48	UMZOMUHLE "H"	KC	H20	0	0	0	0	724	72	23349	304	24449	1
49	ST. ANNE'S	KH	H20	0	0	0	0	0	85	23254	151	23491	1
	CATCHMENT COMPONENT			4257	4491	22663	11087	47377	106532	1687417	96375	1980198	100
	PERCENT			0.2	0.2	1.1	0.6	2.4	5.4	85.2	4.9	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 36

NATAL-KWAZULU HEALTH FACILITIES: HPSR "I" PORT SHEPSTONE

CATCHMENT POPULATION ACCORDING TO HPSRs [NU AND PERCENT]

NO.	HEALTH FACILITY	CAT	HR/MD	HEALTH PLANNING SUBREGION OF RESIDENCE A	B	C	D	F	G	H	I	TOTAL CATCHMENT POPULATION	%
1	USHER MEMORIAL	PH	I77	0	0	0	0	0	454	0	17610	18064	2
2	G. J. CROOKES	PH	I80	0	0	0	906	100	427	7507	62023	70963	7
3	ST. ANDREWS	PH	I78	0	0	0	0	0	0	29	4765	4794	0
4	TAYLOR BEQUEST	PH	I77	0	0	0	0	0	0	0	3127	3127	0
5	MURCHISON	SH	I79	0	0	0	0	61	85	66	193927	194139	20
6	BENDIGO	LC	I79	0	0	0	0	0	0	0	23268	23268	2
7	CRAGIEBURN	LC	I80	0	0	0	0	0	0	888	8472	9360	1
8	HARDING	LC	I78	0	0	0	0	0	28	0	4216	4244	0
9	KOKSSTAD	LC	I77	0	0	0	0	0	0	0	8755	8755	1
10	MARBURG	LC	I79	0	0	0	0	0	0	0	40035	40035	4
11	MARGATE	LC	I79	0	0	0	0	0	0	186	118886	119072	12
12	MATATIELE	LC	I77	0	0	0	0	0	0	0	1646	1646	0
13	PORT SHEPSTONE	LC	I79	0	0	0	0	0	0	259	40422	40681	4
14	SCOTTSBURGH	LC	I80	0	0	0	0	0	0	0	6896	6896	1
15	SHELLEY BEACH	LC	I25	0	0	0	0	0	0	0	11744	11744	1
16	UMKOMAAS	LC	I80	0	0	0	0	0	0	0	4089	4089	0
17	UMTENTWENI	LC	I79	0	0	0	0	0	0	57	16239	16296	2
18	UMZINTO (N)	LC	I80	0	0	0	0	0	668	0	11565	12233	1
19	ASSISI	KH	I25	0	0	0	0	0	1964	30	15548	17543	2
20	HLOKOZI	KC	I24	0	0	0	0	0	0	0	11623	11623	1
21	NOELU	KC	I25	0	0	0	0	0	0	99	23298	23397	2
22	MORRISONS	KC	I25	0	0	0	0	0	85	0	19329	19415	2
23	NTIMBANKULU	KC	I25	0	0	0	0	0	427	192	15630	16249	2
24	NYANGWINI	KC	I25	0	0	0	0	0	0	0	24412	24412	2
25	PUNGASHE	KC	I25	0	0	0	0	61	342	0	19538	19940	2
26	ST FAITH'S	KC	I25	0	0	0	0	0	854	0	17263	18117	2
27	PORT SHEPSTONE	PH	I79	0	52	0	103	0	280	228	218873	219536	22
28	DUDUDU (P/MSHIYENI)	KC	I24	0	0	0	0	0	0	0	13147	13147	1
29	JOLIVET (P/MSHIYENI)	KC	I24	0	0	0	0	0	109	216	17871	18196	2
	CATCHMENT COMPONENT			0	52	0	1009	222	5725	9756	974215	990979	100
	PERCENT			0.0	0.0	0.0	0.1	0.0	0.6	1.0	98.3	100	
	TOTAL POPULATION			370280	274640	542970	546180	987040	964640	1733280	1094240	6513270	

TABLE 37

SUMMARY AND EVALUATION OF SOME OF THE DATA CONTAINED IN TABLES 28 TO 35, ACCORDING TO HPSRs

HPSR	No. of Hosp	No. of Clinic	Total No of H/F	Clinic /Hosp	Pop of N/K	Pop/ Clinic	Pop/ Hosp
A	4 (6.5) (33.3)	8 (4.5) (66.7)	12 (5.0) (100)	2.0	370280 (5.7)	46285	92570
B	4 (6.5) (28.6)	10 (5.6) (71.4)	14 (5.9) (100)	2.5	274640 (4.2)	27460	68660
C	7 (11.5) (33.3)	21 (11.8) (66.7)	28 (11.7) (100)	3.0	542970 (8.3)	25856	77567
D	4 (6.5) (36.4)	7 (3.9) (63.6)	11 (4.6) (100)	1.8	546180 (8.4)	78026	136545
F	14 (23.0) (20.0)	56 (31.5) (80.0)	70 (29.3) (100)	4.0	987040 (15.2)	17626	70503
G	8 (13.1) (30.8)	18 (10.1) (69.2)	26 (10.9) (100)	2.3	964640 (14.8)	53591	120580
H	13 (21.3) (26.5)	36 (20.2) (73.5)	49 (20.5) (100)	2.8	1733280 (26.6)	48147	133329
I	7 (11.5) (24.1)	22 (12.4) (75.9)	29 (12.1) (100)	3.1	1094240 (16.8)	49738	156320
TOT	61 (100) (25.9)	178 (100) (74.1)	239 (100) (100)		6513269 (100)		
	AVERAGE			2.9		36591	106775

TABLE 38

CATCHMENT POPULATIONS AND CROSS BOUNDARY FLOW ACCORDING TO HEALTH PLANNING SUB-REGIONS :

NUMBER AND PERCENT (%)

HEALTH PLANNING SUBREGION OF HEALTH FAC.	HEALTH PLANNING SUB-REGION OF RESIDENCE OF USERS OF HEALTH FACILITIES								
	A	B	C	D	F	G	H	I	TOTAL
A	352759 (95.3) 94.5	3074 (1.1) 0.8	527 (0.1) 0.1	15219 (2.8) 4.1	218 (<0.1) 0.1	229 (<0.1) 0.1	928 (0.1) 0.2	361 (<0.1) 0.1	373315 (5.7) 100
B	3138 (0.8) 1.2	249593 (90.9) 92.7	14505 (2.7) 5.4	200 (<0.1) 0.1	1634 (0.2) 0.6	119 (<0.1) <0.1	143 (<0.1) 0.1	0 (0.0) 0.0	269331 (4.1) 100
C	1072 (0.3) 0.2	1876 (0.7) 0.4	477046 (87.9) 98.1	103 (<0.1) <0.1	5730 (0.6) 1.2	72 (<0.1) <0.1	264 (<0.1) 0.1	197 (<0.1) <0.1	486361 (7.5) 100
D	6470 (1.7) 1.3	0 (0.0) 0.0	0 (0.0) 0.0	469024 (85.9) 97.5	143 (<0.1) <0.1	4920 (0.5) 1.0	344 (<0.1) 0.1	197 (<0.1) <0.1	481097 (7.4) 100
F	1265 (0.3) 0.1	15146 (5.5) 1.5	28157 (5.2) 2.8	6789 (1.2) 0.7	918955 (93.1) 92.0	12228 (1.3) 1.2	14709 (0.8) 1.5	1381 (0.1) 0.1	998631 (15.3) 100
G	1319 (0.4) 0.1	407 (0.1) <0.1	72 (<0.1) <0.1	42750 (7.8) 4.6	12761(1.3) 1.4	834815 (86.5) 89.4	19719 (1.1) 2.1	21514 (2.0) 2.3	933358 (14.3) 100
H	4257 (1.1) 0.2	4491 (1.6) 0.2	22663 (4.2) 1.1	11087 (2.0) 0.6	47377 (4.8) 2.4	106532 (11.0) 5.4	1687417 (97.4) 85.2	96375 (8.8) 4.9	1980198(30.4) 100
I	0 (0.0) 0.0	52 (<0.1) <0.1	0 (0.0) 0.0	1009 (0.2) 0.1	222 (<0.1) <0.1	5725 (0.6) 0.6	9756 (0.6) 1.0	974215 (89.0) 98.3	990979(15.2) 100
TOTAL	370280 (100) 5.7	274640 (100) 4.2	542970 (100) 8.3	546180 (100) 8.4	987040 (100) 15.2	964640 (100) 14.8	1733280 (100) 26.6	1094240 (100) 16.8	6513269 (100) 100

TABLE 39

NET CROSS-BOUNDARY FLOW OF OUTPATIENTS ACCORDING TO HPSR

HPSR	CATCHMENT POPULATION	INFLOW(%)	OUTFLOW(%)	NET-FLOW(%)
A	373315	5.5	4.7	+ 0.8
B	269331	7.3	9.1	- 1.8
C	486361	1.9	12.1	-10.2
D	481097	2.5	14.1	-11.6
F	998631	8.0	6.9	+ 1.1
G	933358	10.6	13.5	- 2.9
H	1980198	14.8	2.6	+12.2
I	990979	1.7	11.0	- 9.3

NOTE : Inflow = Non-residents attending HPSR facilities, as a percentage of the HPSR total catchment population of the host HPSR.

Outflow = Residents of HPSR attending health facilities in other HPSRs as a total of their own HPSRs catchment population.

Net Flow = The net result of inflow and outflow as a percentage of the total catchment population of the HPSR.

TABLE 40

USE OF PUBLIC SECTOR HEALTH FACILITIES ACCORDING TO RACE : ATTENDANCES, POPULATION SIZE AND ATTENDANCE RATE/1000 POPULATION/ANNUM

NUMBERS AND PERCENT (%)

RACE	PATIENTS	POPULATION	ATTENDANCE RATE
Blacks	94877 (72.6)	5171110 (79.4)	954
Coloureds	3857 (3.0)	93380 (1.4)	2147
Indians	22045 (16.9)	672460 (10.3)	1704
Whites	9693 (7.4)	576320 (8.9)	874
Undertermined	172 (0.1)	- -	-
Total	130644 (100)	6513270 (100)	1420

TABLE 41

USE OF HEALTH CARE FACILITIES IN NATAL/KWAZULU ACCORDING TO SOURCE OF REFERRAL : NUMBER AND PERCENT (%)

SOURCE OF REFERRAL	NUMBER AND PERCENT
Follow-up	59990 (45.9)
Clinic	4967 (3.8)
General Practitioner	2453 (1.9)
Other hospital	2157 (1.7)
Self	51542 (39.4)
Other	6626 (5.1)
Undetermined	2909 (2.2)
Total	130644 (100)

NAME OF AUTHORITY : _____

NAME OF HOSPITAL : _____ NAME OF CLINIC : _____

For each outpatient and clinic attendance please tick the appropriate columns indicating the race, magisterial district of normal residence and the source of referral.

RACIAL GROUP				MAGISTERIAL DISTRICT OF NORMAL RESIDENCE (TICK ONE OR SPECIFY)										SOURCE OF REFERRAL (TICK ONE)					
AFRICAN	COLOURED	INDIAN	WHITE											FOLLOW-UP VISIT	CLINIC	PRIVATE DOCTOR	OTHER HOSPITAL	SELF	OTHER

JOINT INQUIRY INTO CATCHMENT POPULATIONS OF HOSPITALS AND CLINICS IN NATAL AND KWAZULU

INSTRUCTION SHEET

A. Instructions to staff responsible for filling in the forms :

1. In the case of a clinic please write its name in the space provided on each form.

2. Information on every person attending your institution from 9 December 1985 to 15 December 1985 (both dates included) must be collected.

3. A separate row should be filled in for each person. eg If the total number of attendances on 18 November 1985 is 80, 4 forms should be completed becuse each form has 20 rows and one row is used for each attendance. Similarly if the total number of attendances on 19 November 1985 is 105, 5 forms plus 5 rows of the sixth form should be completed.

4. For each of the three sections tick the appropriate column.
eg (1) Racial group - tick the racial group to which the person belongs
(2) Magisterial District of normal residence - this refers to the persons home address where they spend most of their time.
(3) Source of Referral - this refers to the person or institution who referred the patient or client to you.

B. Examples :

The following examples serve to illustrate how the necessary information should be recorded onto the forms provided. The Lancers Road Clinic in Durban is used as an example.

Patient 1: Mrs Zulu, an African female, attended the Lancers Road Clinic on 18 November 1985 without any referral. She became ill whilst visiting her relatives in Chesterville. Her normal place of residence is Hlabisa.

Patient 2: Sybil Blair, a Coloured female, was referred by her Employer to the Family Planning Clinic in Lancers Road. She lives in Wentworth, Durban.

Patient 3: On 16 November 1985 an Indian child, Neela Reddy, was immunized (DWT and Polio) at the Lancer's Road Clinic. Her mother returned with the child on 18 November 1985 because she was concerned about the rash at the injection site. The baby's home is in Umzinto.

RACIAL GROUP				MAGISTERIAL DISTRICT OF NORMAL RESIDENCE (TICK ONE OR SPECIFY)										SOURCE OF REFERRAL (TICK ONE)					
AFRICAN	COLOURED	INDIAN	WHITE	DURBAN	INANDA	NTUZUMA	UMZINTO	NDWEDWE	MLAZI	PINETOWN	EDUMALANGA	EMBUMBULU	OTHER (SPECIFY)	FOLLOW-UP VISIT	CLINIC	PRIVATE DOCTOR	OTHER HOSPITAL	SELF	OTHER
✓													Hlabisa					✓	
	✓			✓											-				✓
		✓					✓							✓					

ANNEXURE B

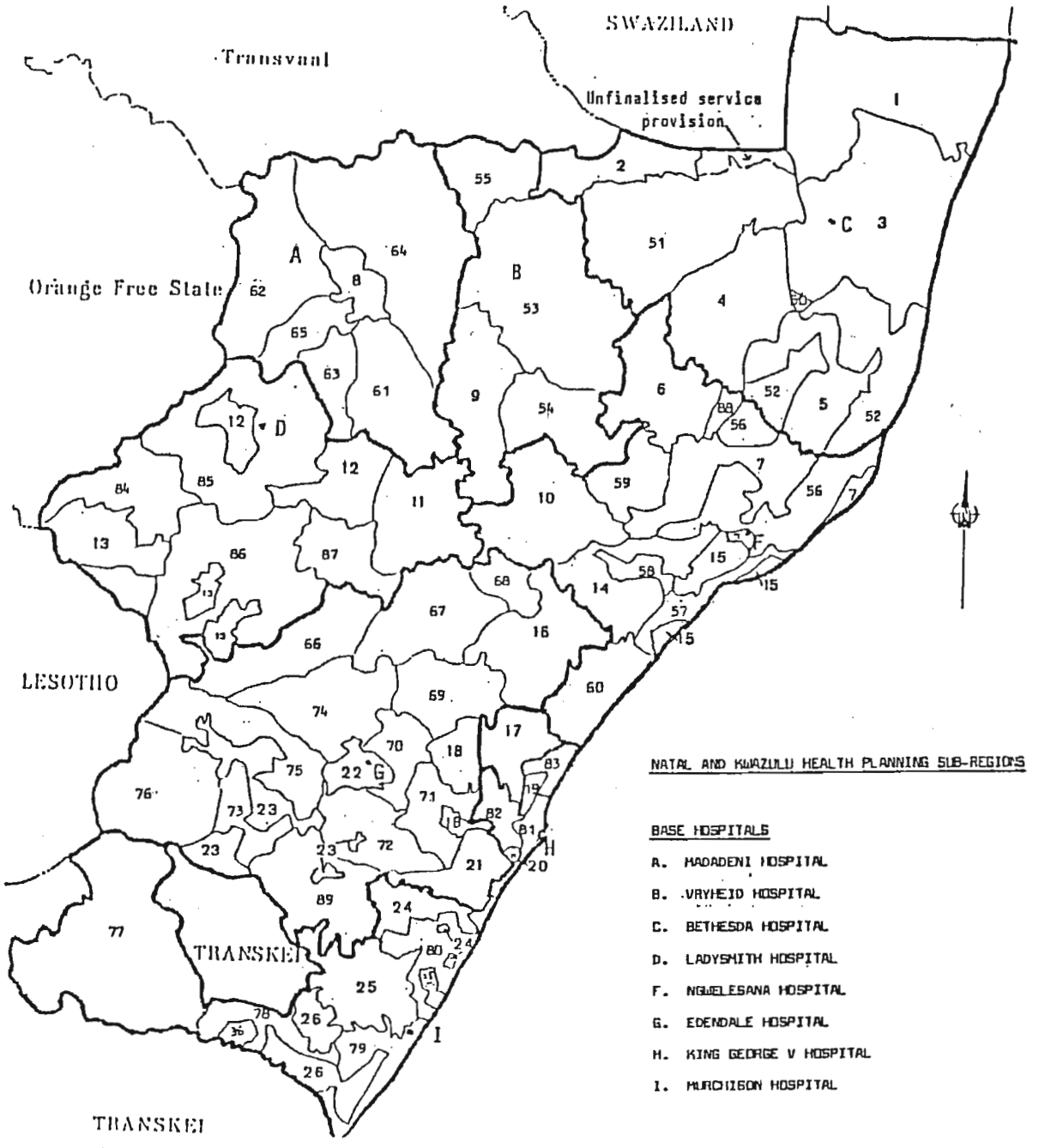
MAGISTERIAL DISTRICTS

A. KWAZULU

1. Ingwavuma
2. Simlandgentsha
3. Umbombo
4. Nongoma
5. Hlabisa
6. Mahlabatini
7. Nseleni
8. Madadeni
9. Nqutu
10. Nkandla
11. Msinga
12. Enambithi
13. Okhahlamba
14. Inkanyezi
15. Ongoye
16. Kwa Maphumulo
17. Ndwedwe
18. Epumalanga
19. Ntuzuma
20. Mlazi
21. Embumbulu
22. Vulindlela
23. Hlanganani
24. Vulamehlo
25. Emzumbe
26. Ezingolweni

B. NATAL

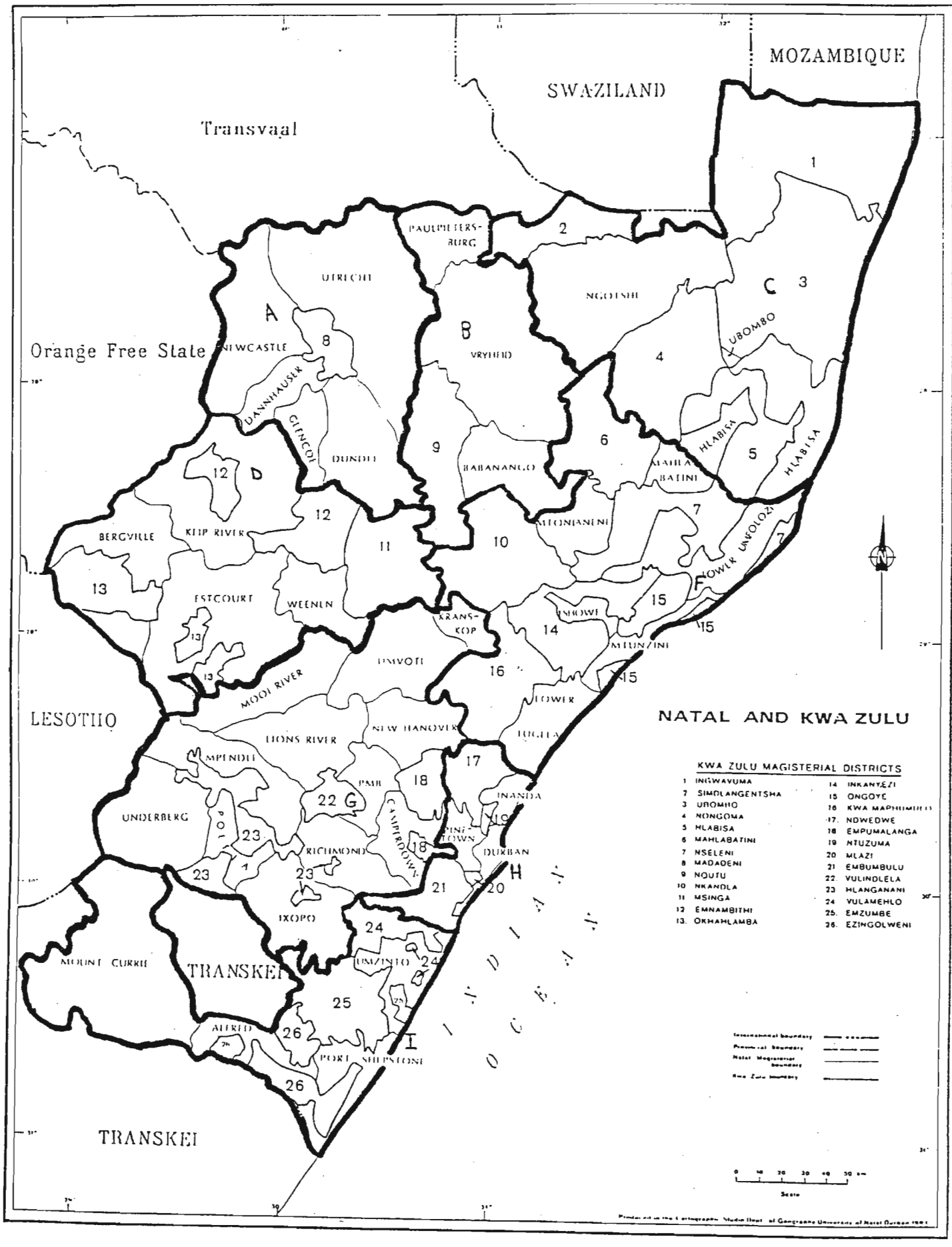
50. Ubombo
51. Ngotshe
52. Hlabisa
53. Vryheid
54. Babanango
55. Paulpietersburg
56. Lower Umfolozi
57. Mtunzini
58. Eshowe
59. Mtonjaneni
60. Lower Tugela
61. Dundee
62. Newcastle
63. Glencoe
64. Utrecht
65. Danhauser
66. Mooi River
67. Umvoti
68. Kranskop
69. New Hanover
70. Pietermaritzburg
71. Camperdown
72. Richmond
73. Polela
74. Lions River
75. Impendle
76. Underberg
77. Mount Currie
78. Alfred
79. Port Shepstone
80. Umzinto
81. Durban
82. Pinetown
83. Inanda
84. Bergville
85. Klip River
86. Estcourt
87. Weenen
88. Mahlabatini
89. Ixopo



ANNEXURE C

ANNEXURE D

HEALTH PLANNING SUB-REGIONS



ANNEXURE E

HOSPITALS IN NATAL AND KWAZULU

HOSPITAL AUTHORITY KEY

S = STATE (NATIONAL HEALTH AND POPULATION DEVELOPMENT)

Z = KWAZULU DEPARTMENT OF HEALTH

N = NATAL PROVINCIAL ADMINISTRATION

P = PRIVATE

ANNEXURE F

PROTOCOL:

CATCHMENT POPULATIONS OF HOSPITALS AND CLINICS IN NATAL/KWAZULU

1 PURPOSE

To determine Catchment Populations of hospitals and clinics in Natal/KwaZulu.

2 OBJECTIVES

(i) To identify the various health authorities operative in Natal/KwaZulu, and the health care facilities under their jurisdiction.

(ii) To ascertain the number and location of all hospitals and clinics in Natal/KwaZulu according to magisterial district.

(iii) To ascertain the populations of all magisterial districts in Natal/KwaZulu.

(iv) To ascertain the usage of health care facilities in Natal/KwaZulu according to race and magisterial district of residence.

(v) To determine the Catchment Populations of all identified health care facilities in Natal/KwaZulu.

(vi) To submit recommendations, where appropriate, in respect of planning of health care facilities in Natal/KwaZulu, with reference to the Health Planning Sub-regions in Natal and KwaZulu.

3 CRITERIA

(i) Catchment Population : The catchment population of a health facility is the size of the population served by the facility.

(ii) KwaZulu: The area proclaimed and established by the South African Government as the KwaZulu Homeland, and administered by the KwaZulu Government.

(iii) Natal : The remainder of territory of the original province of Natal, after the excision of areas proclaimed as KwaZulu.

(iv) Health Care Facilities : Hospitals, fixed clinics and health centres.

(v) Clinics : Fixed clinics, including health centres, but excluding mobile clinics.

(vi) Health Planning Sub-Region : A geographically defined area by the Natal/KwaZulu Health Liaison Committee which will constitute an operational unit for the planning, coordination, delivery and management of health services.

4 REDUCTION OF BIAS

(i) Sampling : All hospitals and fixed clinics in Natal/KwaZulu were included in the study as were all patients who attended for treatment during the study period (Annexure A).

No control group was selected for the purposes of this descriptive study.

(ii) Interviewing : Standard collation sheets were utilized to collect data in respect of racial identity, magisterial district of residence and source of referral, of patients. The interviewers were thoroughly briefed with regard to the conducting of the survey by senior personnel in the respective health care facilities.

5 METHOD

(i) The survey was commissioned by the Natal/KwaZulu Health Services Liaison Committee, who authorised the researcher to use the data of the survey to determine the catchment populations of the health facilities in Natal/KwaZulu and to submit a report (Annexure B).

(ii) The survey was coordinated by the Department of Community Health which was responsible for the drawing up of self analysing collation sheets in respect of each health care facility in Natal and KwaZulu (Annexure C).

(iii) The collation sheets were distributed to the various Health Authorities in Natal/KwaZulu for implementation of the study in their respective hospitals and clinics. Guidelines in respect of conducting the study were enclosed with the collation sheets (Annexure D).

(iv) The patients were interviewed by admission clerks and relevant data were recorded directly onto the collation sheets.

(v) In respect of the racial group, magisterial district of normal residence and source of referral of each patient attender, a tick was placed in the appropriate column on the collation sheet. The study was conducted over a period of one week.

(vi) The completed collation sheets from the various health facilities were sent to the appropriate authority and then submitted to the Department of Community Health.

(vii) Collected data will be assessed for completeness and where necessary appropriate steps will be taken to confirm data entries and to achieve higher levels of completeness.

(viii) Population data of all the Magisterial Districts in Natal as well as all those in KwaZulu will be obtained from the 1980 decennial National Census.

6 DATA SOURCES

The data were elicited from the hospitals, clinics and health centres in Natal/KwaZulu administered by the following Health Authorities operative in the area :

(i) Department of National Health and Population Development (Health-RSA).

(ii) Department of Hospital Services, Natal Provincial Administration (DHS-NPA).

(iii) Department of Health and Welfare, KwaZulu (Health-KZ).

(iv) Development and Services Board (DSB).

(v) Local Authorities in Natal.

7 LITERATURE SURVEY

Ongoing appraisal of relevant literature and other material will be made by the researcher during the course of the research study.

8 COLLATION AND ANALYSIS OF DATA

All data collected will be collated manually and analysed using a microcomputer. Standard statistical procedures will be used in the presentation of the data.

9 PUBLICATION OF FINDINGS

(i) An initial report on the findings of the study will be prepared for submission to the Natal/KwaZulu Health Liaison Committee.

(ii) A final and more extensive report will be submitted to the University of Natal in partial fulfilment of the requirements for Part II of the Master of Medicine (Community Health).

10 BARRIER DATES

(i)	Completion of research protocol	:	15 6 86
(ii)	Obtaining of authorities *	:	accomplished
(iii)	Collection of data #	:	accomplished
(iv)	Collation of data	:	30 8 86
(v)	Submission of initial report	:	31 10 86
(vi)	Submission of final report	:	30 6 87

* Authority to collect data was obtained from the various health authorities.

\# Authority to collate, analyse and produce a report was obtained from the Natal/KwaZulu Health Services Liaison Committee.

E Dada
Department of Community Health
University of Natal
24 Jul 86

APPENDIX TO THE PROTOCOL:

CATCHMENT POPULATIONS OF HOSPITALS AND CLINICS IN NATAL/KWAZULU

LIST OF HEALTH FACILITIES (FROM WHICH THE DATA WERE OBTAINED)

A HOSPITALS

1 NPA

1 Addington
2 Clairwood
3 Dundee
4 East Griqualand and Usher Memorial
5 Empangeni
6 Eshowe
7 Estcourt
8 G J Crookes
9 Greys
10 Greytown
11 Hillcrest
12 King Edward VIII
13 Ladysmith
14 Newcastle
15 Northdale
16 Port Shepstone
17 R K Khan
18 St Anne's
19 Stanger
20 Taylor Bequest
21 Utrecht
22 Vryheid
23 Wentworth
24 Christ the King
25 St Andrews

2 NPA SUBSIDISED HOSPITALS

1 Botha's Hill - Don McKenize Centre
2 McCord Zulu
3 Mountain View
4 St Aidan's
5 St Mary (Melmoth)
6 St Mary's (Mariannhill)
7 Siloah Mission

3 DEPARTMENT OF NATIONAL HEALTH AND POPULATION DEVELOPMENT

1 Osindisweni
2 St Appolinaris
3 Emmaus
4 Itshelejuba
5 Murchison

4 KWAZULU

1 Appelsbosch
2 Assisi
3 Benedictine
4 Bethesda
5 Catherine Booth
6 Ceza
7 Charles Johnson
8 Church of Scotland
9 Edendale
10 Madadeni
11 Manguzi
12 Mbongoliwane
13 Montebello
14 Mosvold
15 Mseleni
16 Ngwelezana
17 Nkandla
18 Prince Mshiyeni
19 St Anne's
20 Umpumulo
21 Umtunjambili
22 KwaMashu Polyclinic
23 Ekombe

B HEALTH CENTRES

1 DEPARTMENT OF HOSPITAL SERVICES (NPA)

1 Richmond
2 Bruntville
3 East Street
4 Beatrice Street
5 Phoenix
6 Newlands East

2 DEPARTMENT OF NATIONAL HEALTH AND POPULATION DEVELOPMENT

1 Nottingham Road
2 Ixopo
3 Tongaat
4 KwaDabeka
5 Botha's Hill
6 Nondweni

C LOCAL AUTHORITY CLINICS

(Including the clinics run by the Development & Services Board)

1 Amanzimtoti
2 Ballito
3 Bendigo
4 Bergville
5 Chatsworth
6 Craigieburn
7 Colenso
8 Dannhauser
9 Duffs Road
10 Dundee
11 Durban
12 Empangeni
13 Eshowe
14 Estcourt
15 Greytown
16 Harding
17 Howick
18 Isipingo
19 Kingsburgh
20 Kloof
21 Ladysmith
22 Marburg
23 Margate
24 Melmoth
25 Mooi Rivier
26 Newcastle
27 New Germany
28 Ottawa
29 Paulpietersburg
30 Pietermaritzburg
31 Pinetown
32 Port Shepstone
33 Redcliff
34 Richards Bay
35 Riet Rivier
36 Scottburgh
37 Shakaskraal
38 Shallcross
39 Shelley Beach
40 Stanger
41 Tugela
42 Umkomaas
43 Umtentweni
44 Umzinto North
45 Verulam
46 Vryheid
47 Westville

AND ALL PRAISE BELONGS
TO GOD THE CHERISHER AND
SUSTAINER OF THE WORLDS