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Dissertation

By

CHIZEMA, Givie

A CASE STUDY OF MUREHW A KUBATANA RURAL DISTRICT COUNCIL, ZIMBABWE_

Disparities in the supply and consumption of Primary health care: a case study of Murehwa Kubatana rural district council, Zimbabwe

December 1994

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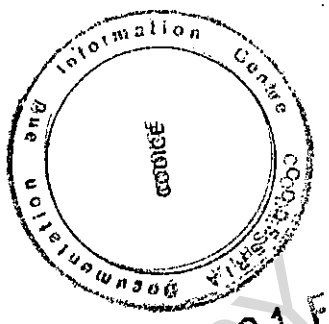

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BSc (Hons) POLAD; DIP (RUP), UZ

A dissertation submitted in partial fulfilment of the requirements for the degree of Master of Science in Rural and Urban Planning

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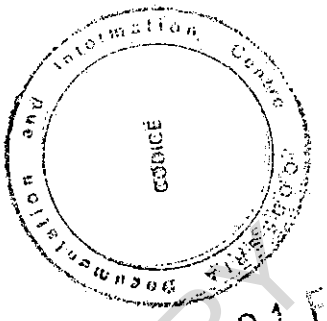

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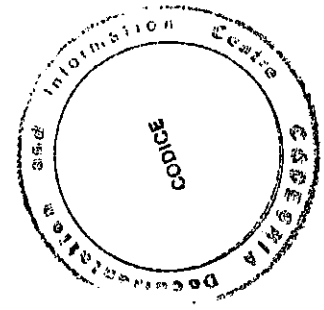
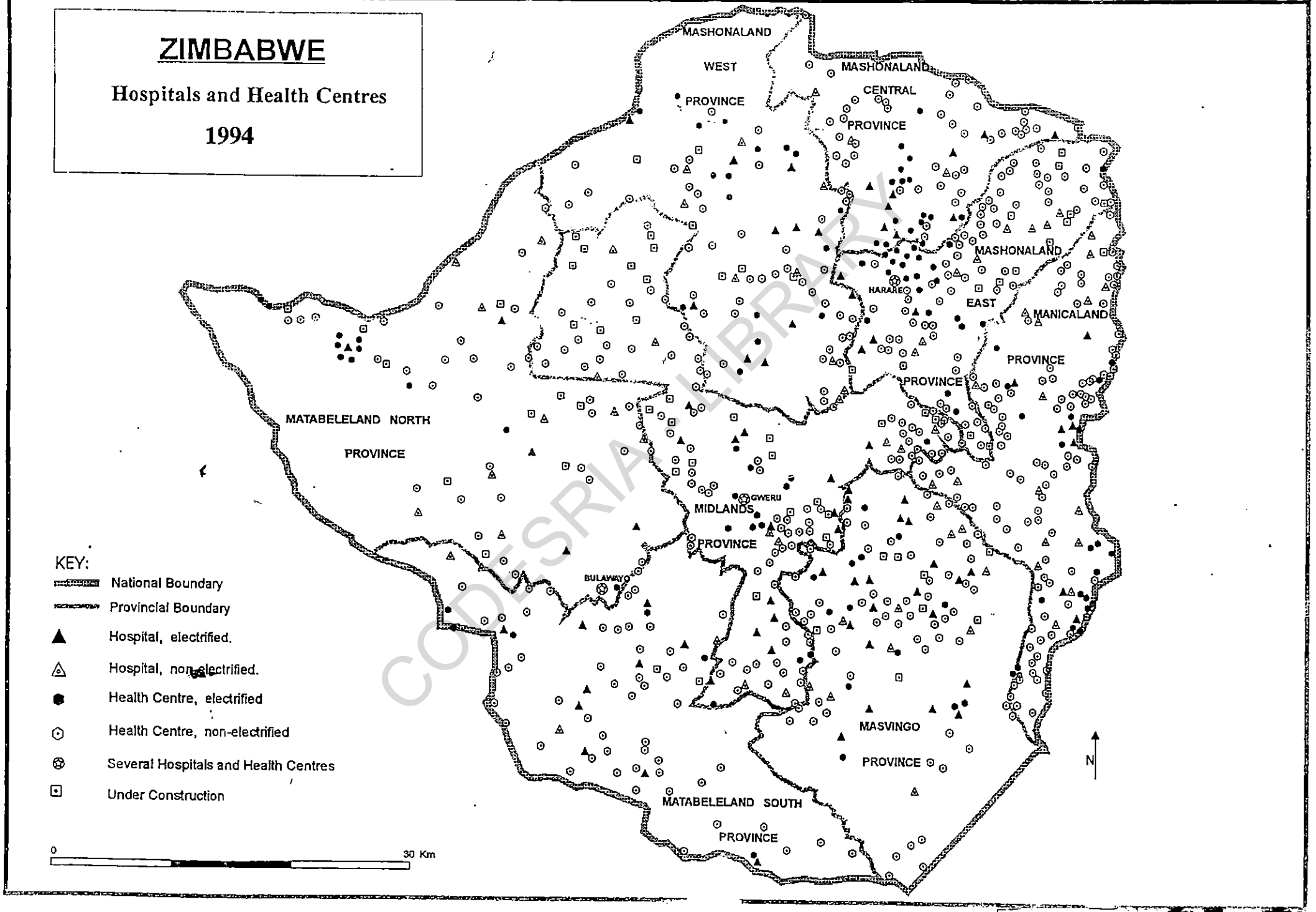


Dedicated To

Phoebie, Violet and Kushinga



DISPARITIES IN THE SUPPLY AND CONSUMPTION OF PRIMARY HEALTH CARE: A CASE STUDY OF MUREHWA KUBATANA DISTRICT COUNCIL, ZIMBABWE

ABSTRACT

Regional planning in Zimbabwe has began from a paradigm which focussed on the development of the centre, thereby tilting almost entirely towards functionality during the peak of British colonialism. It was towards the end of foreign rule and at the height of the people's liberation struggle that the regional planning development discourse began to strike a balance between territory and function. The primary health service planning has been conceptualised in this manner in this study. Attempts to reduce intra-spatial disparities in health service provision within the hitherto neglected regions in Zimbabwe is a post-independent phenomena.

The post-independent primary health care facility planning was characterised by poor access and distribution of facilities. This, however, can be attributed to the ambiguous distinction between demand and need for primary health services among the Zimbabwean health service planners. The non participation by the local communities in planning, siting and decision making processes, have also contributed to this disparity in supply.

A qualitative Participatory Learning Methodology (PALM) was used by this study to gather the needed data. It emphasised joint investigation of the primary health care facility problem and participation of the local peoples. A purposive sample of the rural district was taken because it permitted the study to focus on a particular area and a specific population, the underserved rural communities.

The study found that the primary health care facilities are not distributed in space in a manner that gives an equittable pattern of access opportunity among the serviced population. The problem of consumption was severe on the ageing population who needed great care than the young population. Access and consumption of Rural Health Centres was further exacerbated by geographical and natural barriers such rivers. It was also found that epidemiological aspects such as sex and severity of the disease influenced the consumption of a facility, as well as the rapport dispalyed by the health staff, and that villagers's preferred visiting health centres where drugs were readily available.

Furthermore, the study found that the Village and Farm Health Workers play a pivotal role in primary health service extension, and endeavouring to bridge the disparity in supply and consumption of such services. These grassroots cadres are inundated with a lot of primary health care tasks, yet their remuneration is not all that rewarding. All in all, the Zimbabwean health resource distribution is becoming in favour of the urban based curative care, with very little attention being paid to primary preventive services within the rural regions.

Acknowledgement

I am particularly grateful to my classmates for commenting and providing me with direction in this study. Discussions with many people and organisations involved with primary health care, especially the Zimbabwe Medical Association, Zimbabwe Association of Traditional Healers, Zimbabwe Association of Church Hospitals, Commercial and Industrial Medical Aid Society and the State Certified Nurses of Zimbabwe, helped in providing vital information used by this study. The various sector ministries of Local Government, Rural and Urban Development, Health and Child Welfare, Public Construction and National Housing, Finance and Economic Development together with other government departments such as the National Planning Commission, Epidemiology Department and the Department of Physical Planning were also helpful and cooperative.

For stimulating my mind, reading and commenting on the earlier draft of this dissertation, I am particularly grateful to Coenraad Brand, my supervisor who read and reacted to my work constructively. Of particular significance is his encouraging criticisms which inspired light to the rest of this study.

I am also particularly indebted to the Council for the Development of Social Science Research in Africa (CODESRIA) for providing me with the research grant that enabled me to undertake and produce this dissertation. Their mission of assisting African scholars in African Universities should be greatly commended.

GIVIE CHIZEMA

Mount Pleasant
HARARE
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ABBREVIATIONS

CDW	Community Development Worker
CIMAS	Commercial and Industrial Medical Aid Society
DDF	District Development Fund
DMO	District Medical Officer
DPP	Department of Physical Planning
EOH	Executive Officer of Health
FHW	Farm Health Worker
HDA	Hospital Doctors Association
IMCRR	Inter-Ministerial Committee on Resettlement and Rural Development
MFED	Ministry of Finance and Economic Development
MHCW	Ministry of Health and Child Welfare
MLGRUD	Ministry of Local Government, Rural and Urban Development
MPCNH	Ministry of Public Construction and National Housing
ORT	Oral Rehydration Therapy
PC	Provincial Council
PDC	Provincial Development Committee
PMD	Provincial Medical Director
RDC	Rural District Council
RDDC	Rural District Development Committee
RHC	Rural Health Centre
SCN	State Certified Nurse
SRN	State Registered Nurse
VHW	Village Health Worker
VIDCO	Village Development Committee
WADCO	Ward Development Committee
ZACH	Zimbabwe Association of Church Hospitals
ZMA	Zimbabwe Medical Association

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CHAPTER ONE

1.0 Primary health care facility planning in historical perspective

1.1 Introduction and background to the research problem

The relationship between planning and performance is puzzling, even in simple situations where few people are involved. It becomes much more elaborate when plans are made on a vast scale for the benefit of the people whom the planners themselves my never meet, and whose views of their pressing needs may never be asked. How can the gap between the rural people on the receiving end of planning and the well intentioned designs of planners be best bridged, so that imagination and resources achieve the most beneficial and equitable results in the supply and consumption of primary health care in Zimbabwe?.

Health services in Zimbabwe reflect the particular socio-economic context of Zimbabwe and the historical legacy of British colonialism. The country continues to be characterised by great disparities in wealth, with a private doctor earning in one month what a village health worker earns in four years. Despite rich national resources, a large part of Zimbabwe's wealth is still under foreign control. The economic profile inherited in 1980 was associated with a pattern of morbidity and mortality that showed great variations with respect to race, geographical area and class. While race had been a less critical factor in determining health status than income after 1980, geographical (urban-rural) and class differences have persisted, with consequent effect on the distribution of ill health. The inherited inequalities also were reflected in a division between curative and preventive care, with a lack of emphasis on the latter. Individualizing health interventions distracted attention from social causes and potential collective action, and rural communities are given no real role in

influencing the supply of primary health care services or controlling primary health interventions.

The continued disparity in ownership of wealth and income have continued to generate huge differences in the type and extent of morbidity in the different social classes in Zimbabwe. So while expanded and qualitatively different health services have significantly reduced mortality and certain types of morbidity, the economy continues to challenge health planners with a burden of nutritional and communicable diseases. In endeavouring to respond to the massive demand for expansion of services, the primary health sector has depended on a mix of public sector allocations, community contributions and donor agency support.

While race is no longer a deciding factor in most aspects of health status, intra-spatial disparities in supply and consumption of the health services has become a more important determinant of health outcomes, along with a rural-urban dichotomy in health service distribution which continues despite an active programme of construction and upgrading of rural facilities. Among the reasons for this disparity are that manpower distribution continues to be biased towards urban areas, conditions of service are poor in the rural areas, and the differing conditions in the mission, district and private company services, with the last not always following Ministry of Health primary health care policies. This spatial bias have been justified in the past by pointing to the referral system of patients from rural primary care to sophisticated central urban hospitals. This function as quaternary referral centres has justified the latter facilities absorbing a large proportion of the health budget, of manpower and of laboratory and other services, and has been used by the Hospital Doctors Association (HDA) to justify their view that almost all doctors should be placed at a central urban or regional facilities.

Added to these social differentials in health care within the public sector is the effect of private sector care. The private sector absorbs about 1000 of Zimbabwe's 1417 doctors, and a significant proportion of the total drug bill, but serves a small section of the population, primarily in the higher income groups. This sector is largely supported by the system of medical aid payments and distorts a fair supply and consumption of health services by absorbing scarce manpower, possibly encouraging excessive tests and interventions and abuse of fee claims. The sector generally ignores preventive and promotive aspects of health care, but many possibly provide a more personal and individualized care with features of continuity, decentralisation, efficiency and reduced waiting times.

Clearly the features of the health care system that undermined equity in supply and consumption in health services in 1980 continue to exist despite great efforts by the public sector to meet the challenge of the health needs of the masses, largely because socioeconomic factors continue to bias the delivery of care. On the international front a number of achievements have been made.

Since the 1940s international health agencies, in cooperation with national governments, have achieved some remarkable successes in developing hospital-based health services and in attacking communicable diseases. The world-wide eradication of small pox presents the most dramatic example of what has been accomplished through international and national expertise. The incidence of diseases such as malaria, trachoma and yellow fever have been checked, though not eradicated, and health conditions in general have improved considerably. During the 1960s, however, international attention focussed on the rapidly growing need to extend basic health services, both preventive and curative, to more people, and especially to rural populations in developing countries. The new approach designed to meet this need originally

called basic health services and now called primary health care require close, long term relationships between health facility providers and rural communities. Unlike small pox and malaria workers, who could arrive in a village, conduct an immunisation clinic or spray with DDT, and then leave; the primary health care worker must live in the village and operate from a primary health centre. In Zimbabwe, these are called Rural Health Centres (R.H.Cs). The primary health care workers should establish bonds of trust and work with the villagers to introduce more healthful behavioural patterns.

1.2 Evolution of the primary health care approach

The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) were the primary architects of this new approach. They promoted this approach at the highest policy level during the International Conference on Primary Health Care at Alma Ata, in the former Soviet Union, in 1978. Primary health care evolved as a concept from the social experiments which were carried out in China, North Vietnam and Cuba, especially from the Chinese model of the "barefoot doctor". The barefoot doctor epitomised the primary health care planners concern for local level involvement in health care and the use of simple, appropriate medical technology.

The declaration of Alma Ata defined primary health care as:

> essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation, and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self reliance and self determination. It forms an integral part of the country's health, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family, and community with the national health system, bringing health care as close as possible to where people live and work, and constitute the first element of a continuing health care process.
>
> (World Health Organization, 1978, p3-4)

Thus primary health care is a process that involves all levels of care, a chain of support according to needs based on the following eight essential elements:

1) education concerning prevailing health problems and the methods of preventing and controlling them;
2) promotion of food supply and proper nutrition;
3) an adequate supply of safe water and basic sanitation;
4) maternal and child care, including family planning;
5) immunisations against major infectious diseases;
6) prevention and control of locally endemic diseases;
7) appropriate treatment of common diseases and injuries;
8) provision of essential drugs (WHO, 1984, p5)

Primary health care programme planning is generally oriented towards the rural regions in Zimbabwe. The programme plans are designed to require few outside resources, though international finance has played a crucial role in the supply of primary health care facilities in almost every rural district in Zimbabwe. The community receiving services is expected to play an active role in providing, maintaining and financing these facilities. Since the services must be appropriate to the rural people's specific needs such as their social, economic and environmental requirements, the precise form of the primary health care system is expected to vary according to local, political, economic, social and cultural patterns. Primary health care differs from basic health care in the locus of responsibility. In basic health care, health services are provided for communities while in primary health care, the emphasis is on community involvement, and the communities are expected to be more involved in providing their own services.

1.3 Organization of health services in independent Zimbabwe

The Zimbabwean health care system is characteristically dominated by public sector provision of medical services. The ministries of

Health and Child Welfare(MHCW), together with the ministry of Local Government, Rural and Urban Development(MLGRUD) are strongly involved in both the supply of public hospitals and some forms of medical as well as para-medical services at the national and sub-national levels. There are in addition to government hospitals a large number of private hospitals of both the charitable and profit making type. The health delivery system is organised into hierarchies of care with each lower level referring complex cases to the next higher level.. The lowest tier is the village health care system which is constituted of Village Health Workers (VHWs) or Farm Health Workers (FHWs) in the case of commercial farming areas. These are accountable to the Chief District Health Assistant. Then there are Rural Health Centres (RHCs). These are primary health care facilities and are staffed by nurses, nurse mid-wives and environmental health technicians. Above these we have District Hospitals which provide comprehensive health care including maternity care and surgery. District Hospitals are staffed by a number of nurses, nurse mid-wives, dental officers and doctors. Then we have Provincial and regional hospitals which provide specialist services, though of varying quantity and quality. It is at these levels that specialist medical staff are found and the focus of medical practice is more on curative rather than preventive.

The RHC provide basic but comprehensive, preventive, curative and rehabilitative functions. It caters for the delivery of uncomplicated births, child spacing, child health and nutrition, routine immunisations for children and anti-tetanus immunizations for women of the child bearing age, environmental sanitation in relation to small scale water supplies and excreta disposal systems, and control of communicable diseases. A RHC also caters for physical and mental handicap as well as general curative care including basic dentistry.

1.4 Purpose, objectives and significance of the study

The major purpose of this study is to explore the significance of primary health care in the development of the rural communities by examining the planning and provision of primary health care facilities within the structures of health provision. Through this exploratory analysis, the study depicts disparities in supply decisions and consumption patterns of RHCs in the Rural Districts of Zimbabwe. The disease patterns and their prevalence within the districts, and the frequency of their attacks on various age structures are portrayed for the purposes of informing policy and planning to divert efforts towards ameliorating the health conditions of the rural communities.

The study aims at contributing to a re-orientation in the administration and planning philosophy of primary health care, so that the rural poor are actively involved in the administration and planning processes of primary health care facilities.

The objectives of the study are four-fold:

1. To generate information that can be utilised for the equitable distribution of primary health care facilities

2. To establish the extent to which local level institutions, the Village Development Committee (VIDCO), Ward Development Committee (WADCO), District Development Committee (DDC) and the Provincial Development Committee (PDC) have an input in the supply decisions of primary health care facilities.

3. To provide a fora for community input in the supply decisions of RHCs as well as encouraging a horizontal and vertical formal, and informal relationship between planning agencies and the rural people.

4. To establish the distribution and pattern of consumption of RHCs within the districts, and make planning recommendations towards an attainment of fairness in terms of supply and consumption.

The significance of this study lies in its practical and theoretical perspectives. Theoretically, it endeavours to develop theories of locational analysis of personnel planning for primary health facilities by integrating decision, institutional, locational and behavioural theory. Its practical significance is grounded in the sense that the RHC is the first point of contact between the rural people and the formal health sector. It is, therefore, a crucial facility in the prevention and curing of diseases as well as maintaining adequate levels of health conditions in the rural districts. The study is also significant on the basis of its analytical approach. It takes a planning analysis of the constraints leading to the slow pace of development of primary health care in the present day rural Zimbabwe. This is looked at from the point of view of the health care delivery systems, that is the ministry of Health and Child Welfare, and the international health organizations.

1.5 Research questions and hypotheses

During the research, the original question for the study was: why is the spatial distribution and access to RHCs in the rural districts unfair among the population? This question evolved into another set of questions; what is the equity criteria? Does it imply fairness and equality in the distribution and consumption of the facilities? Are the consumption patterns of a RHC a function of distance, nature and severity of the diseases or some other considerations? The answers had to come from an examination of the planning and decision making processes, the elaborate community setting in which decisions and plans are made, and how these decisions and plans filter downwards/upwards through the stages of

implementation to interact with the objective conditions obtaining at the local levels.

The study also had in mind the following set of questions; why is there an unclear differentiation between demand and need for health service facilities? What is a need? What is demand? Are the two synonymous? Which one is considered the most important in spatial equity planning of RHCs? By whom and why? These set of questions allowed the researcher to delve into the bases which planners use to locate a health facility at a particular locality.

Lastly, the study attempted to answer the following questions why do grassroots people not take an active part in the planning and siting decisions of RHCs.? Is there something wrong with the people or the grassroots participatory planning structures available? How are these structures organised? Does their organization inhibit villagers' willingness to participate or stifle local initiative? These questions enabled the researcher to scrutinise ways in which the grassroots communities are involved in the development and provision of primary health care facilities.

The following are a set of hypotheses which guided this research.

1. Primary health care is a component of rural development and plays a significant role in the growth and development of the rural people. Maintaining adequate levels of rural health care are necessary to ensure this growth and development.

2. Primary health care is part of a health care system that is a public good. Therefore, equality of access opportunity to a primary health facility is a basic premise.

3. Involvement of the local people in supply decisions is a key aspect towards achieving a fair distribution and consumption patterns of RHCs.

1.6 The primary health care facility problem:intra-spatial disparities

Researchers who have thus far given intellectual expression to the primary health care development discourse in Southern Africa, more so in Zimbabwe, South Africa and Namibia have been largely pre-occupied with conceptualising the problems inherent in the discourse from a rural-urban posture. A number of researches and titles published in recent years reflect this preoccupation.

A scanning of the work done by researchers in the field of primary health care development demonstrate a definite concern with the rural-urban dichotomy. Disparities in the delivery of primary health care have been and continue to be conceived in terms of the rural-urban sectors to the detriment of inequalities within the rural regions themselves. Gilmurray, Riddel and Sanders (1980) noted that by the 1970s, the whites in Zimbabwe had developed a modern health care system for themselves with large, capital intensive hospitals that had a curative focus. They estimated the doctor-patient ratio for the 230 000 Rhodesian whites to be 1:830. which put the level of medical care at the general level of that available in the developed countries. Riddel in Sanders (1982) observed that at independence about Z$144 per year was spent on health care for each white, Z$31 was spent on each urban black and Z$4 was spent on health care of each person residing in the rural areas. The rural health sector compared unfavourably with the urban health sector. Statistics to show inter-variations within the rural areas are non existent owing to the fact that virtually no research had been undertaken to depict intra-spatial variations in the allocation of medical facilities within the so called black areas. However, there are good reasons for this consuming pre-occupation.

The then prevailing academic discourse was popularly racial in content and style, such that most of the research problems were

conceptualised and defined from a rural-urban stand point. This was because, Southern Africa is comprised of newly independent nation states, with Zimbabwe being independent in 1980, Namibia 1990 and South Africa in 1994, therefore, the memories of the white liberal paternalist policies are still fresh in the minds of the black majorities. The white colonial supremacist policies concentrated on the development of white areas and in the process most black areas, which were rural, remained underdeveloped.

This clearly points to the fact that the researchers themselves emerged from a hostile black-white or rural-urban environment. To become intellectuals and researchers, they had to overcome the obstacles of an oppressive system deliberately placed in their way.

Indeed, men and women in a way are a product of their environment in as much as they react to control it. Emerging from circumstances highly charged with racial attitudes and practices, the researchers could not escape the influence of their environment. They could hardly think in a vacuum. It was, therefore, not surprising that their thought processes had to follow a rural-urban or black-white dichotomy. An investigation of intra-spatial disparities in the supply and consumption of primary health care within the black areas seem to await for a post independent society. This study is re-orientalist and breaks away from the classical "inter" conceptualisation of problems to investigating disparities in primary health care from an intra-spatial perspective within the rural district themselves.

1.6.1 Distribution and access

The spatial distribution and access opportunities to rural health facilities in the rural districts of Zimbabwe typically fails to satisfy the equity criteria. The RHCs are not distributed in space in a manner that gives an equitable pattern of access opportunity. This in turn has influenced the nature of their consumption.

Primary health service distribution is often inadequate and coupled by poor access, even to those facilities that have been provided. The problems of gaining fair access to primary health care facilities cause the most additional hardship for those people which are in the greatest need of supportive primary health services.

1.6.2 Demand and need for health service facilities

The provision of RHCs in Zimbabwe is characterised by the problematic issue of an unclear and ambiguous distinction between the demand and need for health service facilities. Fein (1966 p.35) suggested that demand can be measured in a strictly economic sense of market consumption, such as the number of visits a given population make to a health centre over a given period of time. Need is somewhat different and relates more to the amount of care believed to be needed by the health authorities or what society believe the population should have. On the other hand, Bradshaw (1972 p72-84) distinguished between normative need, which is expressed as a desirable standard laid down by health planners and administrators; felt need which is an attitudinal measure of peoples' requirements for a specific service, and comparative need, which is a measure derived from studies of populations in receipt of differing levels of service. It has become apparent in the Zimbabwean rural health facility planning that there is a lack of clarity or professional consensus on what constitute need and/or demand for R.H.Cs.

1.6.3 Non-participation

The problem of non-participation by the grassroots communities in planning and siting of rural health facilities has in some ways contributed to an unfair distribution of R.H.Cs. It is a widely held view in micro level primary health care development planning and management that the grassroots people have adequate access to planning and decision making processes. Official thinking within

the primary health care circles believe that the community has a wide range of means to express their public opinions on a wide range of primary health development care issues, including the media and the grassroots planning and administrative structures (VIDCOs and WADCOs) currently in place in Zimbabwe.

1.7 A history of primary health care provision

Though the main thrust of this study is on the supply and consumption of primary health care facilities, and the disease patterns obtaining in the rural districts in post colonial Zimbabwe, it would be difficult for readers to comprehend this allocation and utilisation of these facilities without an overview of primary health care development and provision during the colonial era. An historical inquiry of Zimbabwe's health service provision is well documented, but these documentations are devoid of an intra-spatial analysis of health services within the rural regions. Historical descriptions have tended to focus on disparities between the rural and urban areas, as has been noted earlier in sub-section 1.6. An outline of the socio-economic and fiscal aspects of both the colonial and post-colonial administrations shall be highlighted in order to paint an illuminating picture of primary health care provision.

1.7.1 Health service under colonialism

The field of primary health care was virtually non existent in colonial Zimbabwe owing to the neglect of the rural areas by the health authorities. The colonial government's emphasis was on large, capital intensive health services that had a curative intention. The medical care system was racially separated between European (white) and African (black) areas. Most of the white population resided in the much more affluent central plateau which stretched from the northern part of the country southwards in a south westerly direction. Coincidentally, this is where the major

cities and towns in Zimbabwe are located.

Disparities in the supply of health services were so acute. It was estimated that there was only one doctor for 50 000 - 100 000 people in the rural areas; one hospital bed for 525 blacks and the health facilities were of poor quality characterised by congestion (Herbst, 1991, p 167). These disparities in supply of health services, compounded by the general inequalities in the colonial administration's socio-economic system, had a direct impact on the kind of diseases the two groups of people suffered from. The disease patterns of Europeans reflected their high standard of living. These diseases were mainly heart and cerebrovascular diseases and various types of cancer (Agere, 1987, p359). On the other hand, diarrheal diseases were the second largest killer among Africans. The transmission routes for diarrheal diseases were faecal-oral and water related. This clearly points out to the extent to which sanitation and clean water supply were unavailable to many Africans. It also suggests the absence of the primary health care approach which would have otherwise prevented these diseases.

Around the mid 1970s the crude white death rate was 8.2 per 1000 and in Britain it was 11.2 per 1000 while the infant mortality rate was 17 per 1000 live births, compared to 16 per 1000 for Britain (UNICEF 1976, p220). The disease patterns of the white population resembled those of their counterparts living in industrialised societies. On the contrary, blacks in colonial Zimbabwe had a health profile typical of citizens in a Third World country. In the mid 1970s the infant mortality rate for rural blacks was between 120 -220 per 1000 live births. A great majority of the rural Africans suffered from malnutrition. Scurvy was reported on farms and mines where rations often failed to meet the single workers' energy demands. Meat and vegetables were withheld from workers on the grounds that these were European foods, of doubtful benefit to the African population (Jones, 1941 p29).

Despite these material constraints to health, the colonial administrators attributed the consequent malnourishment and ill health among Africans to incorrect eating habits and poor health of workers on recruitment (Southern Rhodesia Government, 1907). Maternal under nutrition led to low birth weight of less than two kilograms in 10-20 per cent of births (WHO , 1970). Together with child protein deficiency, these major forms of under nutrition predisposed their victims to more serious and often fatal forms of infections, the most significant of which were measles, pneumonia, tuberculosis and parasitic diseases.

Health care for the black population was mainly restricted to epidemic control and the provision of a limited level of curative care. Public health preventive measures were only extended to the local people around European settlements for fear of the spread of epidemics. The health care system was highly centralised, and whenever there was an outbreak of disease it was the European community that received attention first (Bloom,1985, p17). The colonial administration did not regard the health care of the African population as a government responsibility, and therefore, very little attention was given to the mass of the African population. Agere (1987, p357) noted that besides the health services which were provided by the colonial government, there were also those services provided by the church. Church hospitals and missionary activities were concentrated away from the cities in the rural areas were the majority of the Zimbabwean black population lived. Church hospitals provided better health care services to blacks than the state and industry combined.

By 1980, the World Bank acknowledged that the health care system in Zimbabwe was characterised by gross disparities in supply of both medical facilities and medical personnel. Of all the doctors in Zimbabwe towards independence, 42 percent were in private practice, while 80 to 90 percent of these were practising in the major urban centres of Harare , Bulawayo, Mutare, Kwekwe, Kadoma and Gweru.

Only a small proportion of doctors were practising in the rural areas.

This disparity in distribution of health service personnel was strongly supported by the system of health care financing. Approximately 80 percent of whites and a small proportion of blacks comprised the 220 000 people covered by private medical aid at independence (Government of Zimbabwe, 1984). This usually paid high cost sophisticated private care, with about Z$4.5 million in subsidy from the government every year. State subsidy for the rich and high income earning professional people was high, with patients in Parirenyatwa Central Hospital serving this elite class receiving 55 times more state subsidy in 1979 than those in rural hospitals (Government of Zimbabwe,1980)

1.7.2 Health services after independence

The health policy after independence was oriented towards redressing the colonial imbalances, and addressing the needs of the masses. A national policy of equity in health resources was adopted, which expressed priority on establishing a national integrated and comprehensive health service that was accessible to every citizen of Zimbabwe. In September 1980 free medical services were introduced for those earning a monthly salary of less than Z$150. As a result of this, government economists estimated that there was going to be a drop of income from clinic fees by Z$2 million, while there was going to be a three fold increase in out-patient attendance in the same year. The Medical Services Act (1979) was repealed, abolishing the racial segregation in the use of health facilities.

1.7.3 The new health care approach

The primary health care approach is a relatively new phenomenon in Zimbabwe. It was adopted in 1982 by the post colonial administration. It was implemented by the new government on the basis of the following principles:

i) that health was considered a fundamental right

ii) that the achievement of good primary health care depended, amongst other things, on community involvement based on self reliance.

Primary health care adoption brought a shift of resources from the urban rural areas, and from curative to preventive services. The appropriation account of the ministry of Health in the first three years after independence bears testimony of this shift.

Table 1 Appropriation account of health resources in Z$

FISCAL YEAR	1980-81	1981-82	1982-83
Medical Care Services	74 906 000	95 802 000	107 290 000
Preventive Services	5 598 000	8 442 000	17 337 546

Source: Secretary for Health Report ,1982-83 p47, Rebuilding Zimbabwe at Five Years of Independence.

The expenditure for preventive services doubled in 1982-83 fiscal year.

Primary health care expanded in the rural areas mobilising social resources through the state, community and various other sources. The costs of construction of many R.H.Cs were borne by the central government in the form of the Public Sector Investment Programme(PSIP) with assistance from the African Development bank (ADB), the European Economic Community (EEC) and Swedish International Development Agency (SIDA).

Investments in the primary health care sector were mainly planned for the construction of R.H.Cs, their upgrading and reconstruction, including the construction of multi-purpose centres under the Family Health Project (FHP). The new government at independence built 316 new R.H.Cs, upgraded and reconstructed 160 others. At the end of the fiscal year 1985, about 210 new R.H.Cs had been built at a cost of Z$17.6 million. However, by the fiscal year 1991, Z$188 million was used in the construction and upgrading of R.H.Cs countrywide, to reach the stated compliment of 766 (Republic of Zimbabwe, 1994, p2)

One significant feature in Zimbabwe's primary health care approach has been the strengthening and re-organization of the grassroots territorial health cadres at the districts and provinces. Eight provincial offices of health were created with medical directors, principal nursing officers and health inspectors, amongst other cadres, giving greater emphasis on preventive and community health practice. District health teams were formed in each rural district so that technical health staff will interact with local government and socio-political structures (VIDCO,WADCO and DDC)

Farm Health Workers(FHWs) and Village Health Workers (VHWs) now called Community Development Workers (CDWs) were trained and deployed in their villages or commercial farming areas. Furthermore, former liberation medics were integrated into the primary health care system with additional training given. These cadres combined preventive and limited curative skills with a political role in organising communities around primary health activities (Loewenson in Mtizwa-Mangiza and Helmsing e tal, 1991, p369). These community health workers were selected by the community and operated in their own villages, each worker covering about 500 people (UNICEF,1985)

1.8 Scope of the study

The study restricted itself to an investigation of the supply and consumption of R.H.Cs, thereby delving into aspects of distribution, accessibility and how the local communities are involved in planning and locational decisions of these facilities. In addition, the study focussed on diseases that are found in these communities as well as their beliefs and how they influence the consumption of modern primary health care services. However, the study continued to take a broad focus of the planning and administration of primary health services in Zimbabwe.

1.9 Organisation of the study

In this study analysis of the supply and consumption of R.H.Cs within the rural districts of Zimbabwe is made. Within this context, the study attempted to interpret the provision of these facilities from a planning outlook. This chapter has provided some background for the ensuing discussion. The study will in chapter two discuss the various theoretical approaches guiding the supply of social services. Alternative theoretical explanations to reinforce our comprehension of consumption behaviour of primary health care services will also be highlighted. A description of the structures involved with health provision will be attempted in all earnest. This chapter will also review a variety of studies done before in the area of primary health care provision.

Chapter three will delve on the materials and methods used by the study in gathering the required information. The methodology utilised will be expressly described pointing out the criteria used to identify the key informants; the instruments and modes of data collection. Moreover, in this chapter, the study area will be presented to the reader. No attempt will be made to provide a general background of Zimbabwe as numerous publications are available describing the historical, political and socio-economic

aspects of the country.

Chapter four will present the findings of the study. It will outline the modes utilised in data processing and analysis, particularly population data which will be projected into the future. The purpose of the projection is to inform policy makers, administrators and planners about the future requirements of primary health facilities, if the current policy of 10000 people for each R.H.C. and a walking distance of eight kilometres is to prevail.

Chapter five will discuss the major implications of this study, provide some planning and policy recommendations. This will be followed by a summary of the main findings and the conclusions which would be drawn from the study.

CHAPTER TWO

2.0 Theoretical underpinnings in primary health care planning and provision.

This chapter reviews various theoretical strands that have currency among health planners and health facility providers in the rural development discourse. It also attempts to bring out the pros and cons of the various theories within a planning framework. The structures of primary health care provision shall be discussed and illuminated to the reader first, followed by a critical analysis of the supply and consumption theories, and their implications to the distribution of health facilities.

2.1 Theoretical Framework

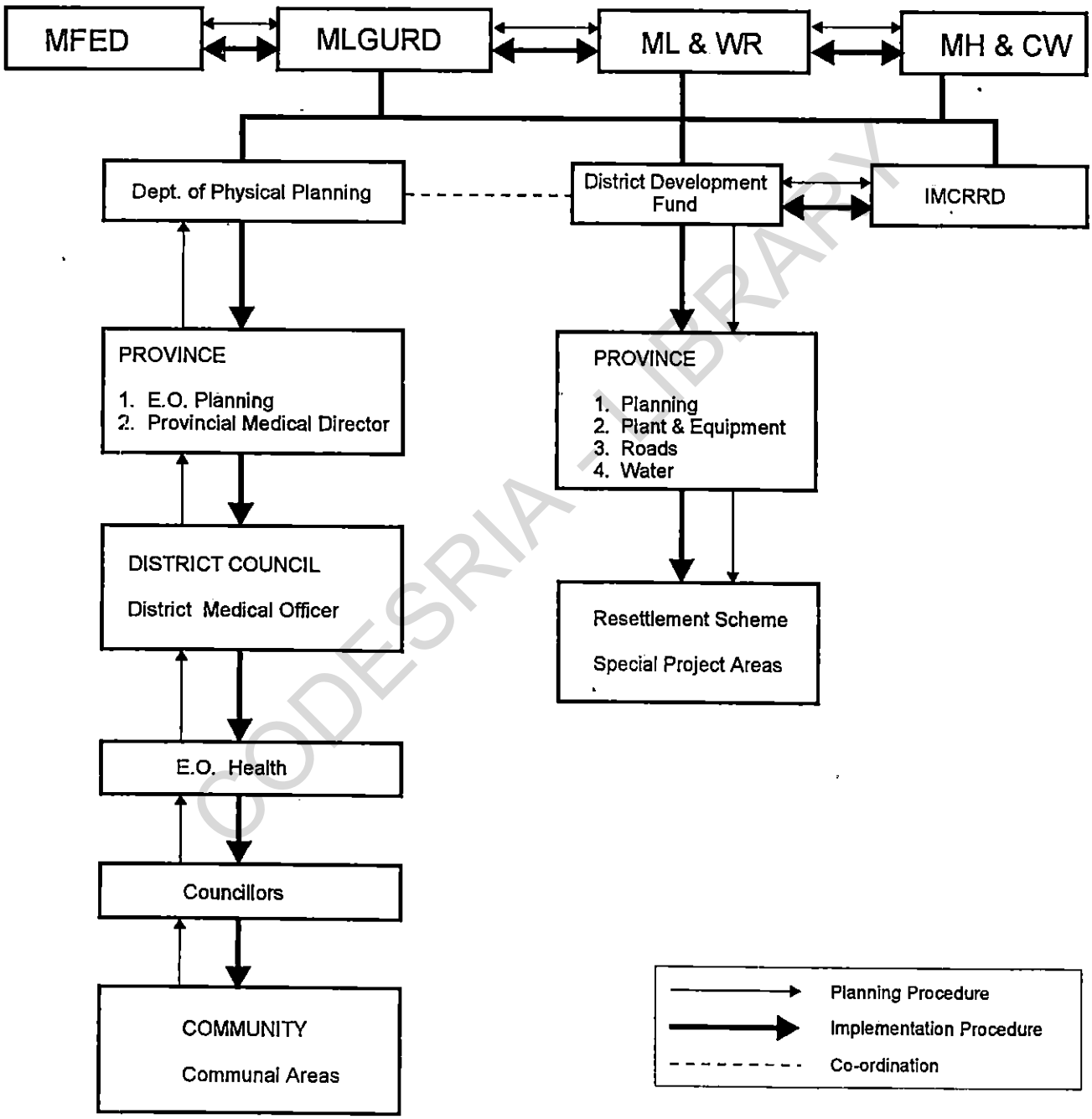
2.1.2 Structures of primary health care planning and provision

By structures, reference is made to the different organisations that are involved with the provision and planning of primary health care. These range from the various sector ministries, rural district councils, grassroots planning and administrative organisations, and the community at large. The provision and planning of primary health care services is a social and economic process characterised by a participatory bottom-up flow of information. This information comprise the various development needs and socio-economic problems affecting the grassroots people. Under this structure of planning and provision, the local communities must identify their needs and approach their local councillors (VIDCO and WADCO) officials. The councillor will then take up the request in the form of local primary health care development plan to the executive officer of health in their rural district. This cadre is normally the District Medical Officer

(DMO), who is a qualified medical graduate. The DMO heads the district health team and reports directly to the Provincial Medical Director (PMD) who is also a medical graduate. The PMD will present the local health plan to the rural district council which will in turn scrutinise it under its District Development Committee (DDC).

Implementation of the plans is a top-down approach as illustrated in figure 1 below:

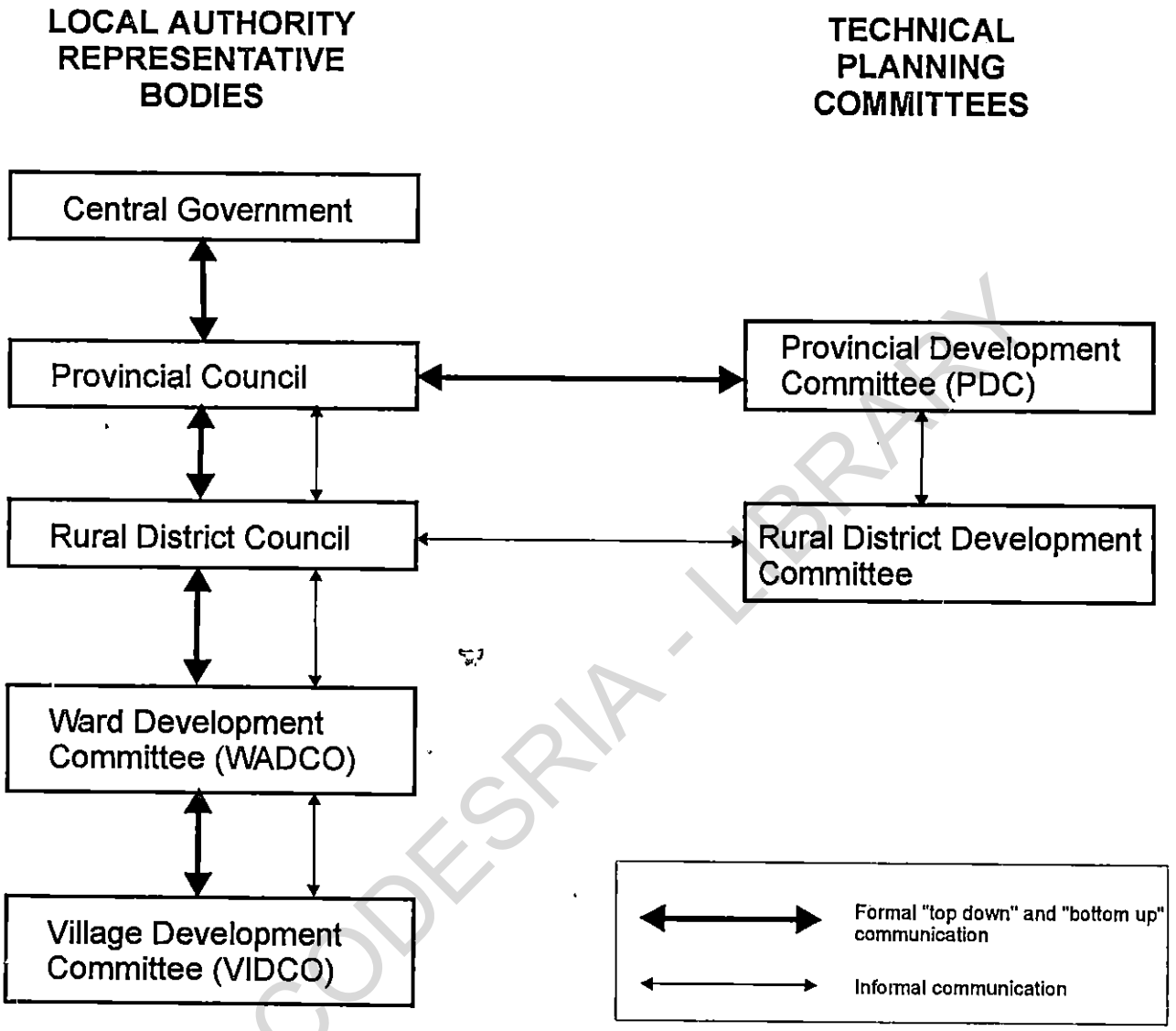
Figure 1: Structures of Primary Health Care Planning and Provision in Zimbabwe



The Department of Physical Planning is responsible for giving expert advice to the rural district councils and the community on planning and implementation aspects, while the Ministry of Finance makes sure that the funds to finance the provision of primary health care facilities are available. The Ministry of Public Construction and National Housing (MPCNH) is the one responsible for constructing the RHCs. However, in special projects areas (Resettlement Schemes) the planning of sites and layout designs for such social services is the responsibility of the District Development Fund (DDF), Resettlement Division. It can be noted that in Resettlement or special project areas, the planning and implementation procedures follow a top-down approach. This is so because the planning and provision of infrastructure like clinics, roads, dips and boreholes take place before the new settlers have been settled. This means therefore, that the much cherished element of community involvement would be absent during this first stage planning.

Crucial to understanding the development and planning process of primary health care provision are the VIDCOs and WADCOs operations. These are the major grassroots planning structures where health needs are channelled from the bottom to the top for attention by the health planners and government. Their structural arrangements require elucidation since they are pivotal to the participation of the local people in the development planning process. Their arrangement and relationship to government and technical planning committees is illustrated below.

Figure 2: Local Partcipatory Planning Structures and their Relationship to Councils



The planning and provision sub-structure is made up of two sides, the representative or elected bodies, that is, the Provincial Council, rural District Council, WADCO, and VIDCO; and planning and co-ordination committees; The Provincial Development Committees (PDC) and the Rural District Development Committee (RDDC). The PDC and the RDDC are technical planning committees which provide advice to the councils and they are composed of both local councillors and central government representatives. The chairpersons of both the PDC and The RDDC are senior civil servants, that is the Provincial Administrator and the District Administrator respectively.

A VIDCO is a locally elected structure that has jurisdiction over a village. A village is defined as the spatial unit over which the VIDCO has authority and consists of 100 families of 10 people each. On the other hand, a WADCO is larger than a VIDCO and consists of six villages. A Ward is defined as a spatial unit over which the WADCO has jurisdiction. Participation by the local people is designed to occur through the VIDCOs and WADCOs. These structures are intended to articulate the needs and desires of ordinary villagers, which are formally presented in the form of a Ward Development Plan, which in turn feed into the Rural District Development Plan. From the district level upwards, ideas on primary health care emerging from the WADCOs begin to be integrated with ideas from central government medical staff (District Medical Officer and Provincial Medical Directors). The Rural District Development Plans, which in turn are intended to feed into the national health development plan. These structures of primary health care planning and provision are meant to enable both a bottom up and top down approach to health development. The VIDCOs and WADCOs have provided a good ground for extension services in primary health care, where activities of Community Development Workers (CDWs) have been particularly impressive.

2.2 Theoretical explanations underlying supply and consumption.

There are numerous explanations which have been put forward and used in the study of health facility provision and their consumption in the western hemisphere. However, these theories have been applied and utilised in the study of health services in the developing countries unselectively. This research investigated the problem within the supply and consumption or location-allocation of social services framework, while the behavioural models have been incorporated in this framework to further enhance our understanding of the consumption patterns of RHCs by the rural people.

2.2.1 Consumption Theories

The folk dichotomy theory put forward by Foster (1978) envisage that the rural and folk peoples tend to divide diseases into two classes, those that modern health personnel understand and cure and those that can be treated by a traditional healer. According to this dualistic theory of disease causation, the determining factor of classifying the diseases is the perceived difference in etiology, that is, diseases that are thought to have a supernatural cause are brought to the attention of a traditional healer while naturally caused diseases are presented to the modern health practitioner. The implication of this theory to the consumption of R.H.Cs is that their consumption is dependent on the type of disease one feels sick with, not on other determining variables such as distance and accessibility.

However, the folk dichotomy theory can be criticised on the basis of the rigid dichotomy underlying it. People may attribute different causes to the same disease or may seek treatment of the same illness from both the traditional and modern health practitioner.

With the emergency of applied anthropology and its focus on the problems of cultural and social change, dual consumption of traditional and modern health services have been associated with the urban areas. Numerous models for the urban settings have been developed, where social and cultural change, including the use of modern medicine have been theorised. This theorisation of dual consumption within the urban environment has a much wider background, as can be seen from the assumptions underlying the theories.

According to Colson (1971, p48), these assumptions can be categorised into two broad classes, one relating to the features of the diseases and the other one describing the features of the patient. With regard to diseases, the most commonly applied assumption is what Foster (1978, p18) has called the folk dichotomy, or the tendency of many rural and folk peoples to divide diseases into two groups. Often implicit in this dualistic theory of consumption is the assumption that rural people, in contrast to their urban counterparts prefer to consume traditional health services. This in the African context is also confirmed by Conco (1972, p289) in his conclusion that:

> On the whole we could generalise and espouse that indigenous tribal societies have or had an all embracing, supernatural, or metaphysical theory of disease.

In this way the theory is urban centred and biased against the rural people, who have been associated with the consumption of traditional health services, whereas the urbanites have been identified with the consumption of modern health services.

On the other hand Liebach (1973) with his acculturation theory, held that modern versus traditional health behaviour is related to such factors like place of residence, level of education, occupation, geographical mobility and religious affiliation. This theory noted that a lot of people in developing countries,

particularly those of a high socio-economic level and educational background, consume modern health services more or less exclusively, but the majority of the rural poor depend on indigenous health care and practices. The implication of the theory is that increased consumption of a health facility often results from increased levels of education and coincides with growing industrialisation. Nonetheless, the theory has its own pitfalls. The consumption of a health centre should not be used as an indicator of social change, but should be viewed in the light of a multiplicity of factors. Consumption of a health centre is a function of several attributes, they may be distance, accessibility in terms of a road network, availability of transport, topography or the nature of the disease.

Summarising the characteristics of consumption theories discussed above, it appears that two theories are prevailing. One has a rather deterministic outlook in that it tend to portray the rural person as merely traditional with regard to the consumption of traditional medicine. The other acknowledges the phenomenon of dual consumption, resulting either from differences in the peoples' causative interpretations of diseases, or from different socio-demographic characteristics of the population. However, the general tendency in both theorisations is to attribute modern health behaviour to a small minority of the population.

So far the study has examined consumption theories which attempt to provide insights into the consumption of health facilities by two groups of population, the rural and urban population, of which one significant observation could be drawn. The important observation which can be made from the foregoing theoretical scrutiny of consumption theories is the dominance of medical anthropologists in this field and a strong emphasis on the traditional aspects of the Third World societies. The medical anthropologists have continued to emphasize traditional aspects of society because they tended to focus on factors resisting the process of change rather than on

those promoting it. Most of the theoretical explanations with regard to traditional and modern health concepts and practices assumed that modern health practices and beliefs will replace traditional ones eventually; and therefore, the main problem faced by such theorisation was to determine the barriers to acceptance of modern health services. The study now turn to examining the models underlying consumption of health services.

2.2.2 Behavioural Models of Consumption

Numerous models have been developed to analyse the consumption of health care services and Veeder (1975, p101) has produced a detailed model of health service consumption, noting how consumption patterns are sensitive to the role of psychological status, social group pressures, motivation, beliefs and institutional barriers. Adopting a behavioural framework for understanding consumption patterns adds considerably to the level of explaining the consumption behaviour of primary health care facilities to that gained through the more traditional normative economic models of spatial use patterns to be discussed in section 2.3 below.

Rosenstock's (1966) modelled the consumption of health services in terms of psychological-motivational determinants. His model propounded that consumption of a health facility is a response to a precipitating cue that will be influenced by the interplay of numerous psycho-social factors. The model further espouse that the manner in which the health system's component services are projected in terms of accessibility, availability and organisation will influence the way the potential consumer perceives the validity of doing so. Emphasis is placed on emotional aspects of beliefs. Past experiences combine with susceptibility, severity, benefit and barrier factors to influence the decision to consume a health facility.

The model developed by Suchman (1966) emphasized socio-environmental determinants where choice in selecting a health facility to be consumed reflects knowledge, availability and convenience of the service as well as social influences (such as religion) on the individual.

On the contrary, Anderson's (1968) model depicts consumption of health services as an outcome of a set of predisposing variables (such as family composition, social structure and health benefits), enabling factors (family and community resources) and need (illness and response). It has been appropriately described as a life cycle determinants model.

A most illuminating behavioural model of the consumption of health services is Gross's (1972, p63) mathematical causal model in the form:

$$C = f(E,P,A,H,X)E$$

where

C = consumption of health services by the individual or family unit
E = enabling factors (e.g. income, family size, occupation, sex, educational attainment)
P = predisposing factors (attitudes, values, knowledge)
A = accessibility factors (distance/time from health facility, service availability, waiting time).
H = perceived health level (disability days)
X = individual and area wide exogenous variables
E = residual error term

The model is appealing on paper, but it has faced a lot of difficulties in terms of its application. However, its outcome and operationalisation has been unimpressive.

All the above theoretical approaches are similar, nonetheless, they place different emphasis on different variables relating to psychological, social, demographic and accessibility factors. These behavioural models of health service consumption are weak on methodological rigour, comparability and completely lack dynamic considerations. Their criticism can be summed up in Veeder's (1975, p108) words:

> what is missing is a description of decision-making factors that occur between cue and consumption action (Rosenstock), between group affiliation, influence and action (Suchman), between family life cycle status and discretionary action (Anderson), and between enabling, predisposing factors and utilisation outcomes (Gross).

It may be fruitful to look at decision theory inorder to provide a comprehensive explanation of the dynamic consumption behaviour of health care services.

2.3 Supply Theories

Theoretical explanations relating to supply decisions of social services are illuminating and provide some of the major concepts used by this study. Even the Zimbabwe's Planning for Equity in Health (1985) which provided a national policy framework within which all health programmes are conceived uses and draws heavily from Christaller and various other locational theories. It particularly made use of the threshold population and the range. The threshold population is the maximum population to be served by a single RHC. In the Zimbabwean case, the population is 10 000 and the range is the maximum distance within which a R.H.C. should service. This distance is earmarked at eight kilometres for each facility. If the population falls below the threshold level, it implies that there would be no need to justify the establishment of a rural health centre. The location-allocation models were very valuable in providing the major concepts used in this study.

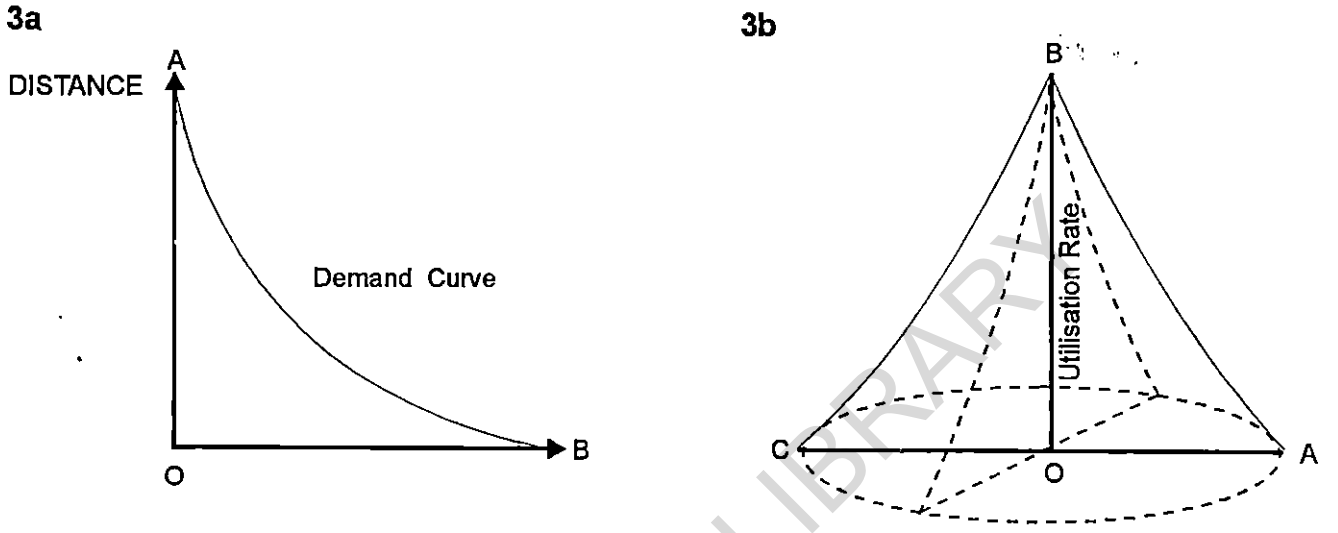
Little definitive work has been done to develop theories of supply analysis. Traditional locational theories have been used, but it is questionable if these are appropriate for the planning and provision of primary health care facilities. Market area and spacing approaches such as those taken by Hotelling (1929), Losch (1954) and Greenhut (1956) attempt to furnish us with explanations of the location behaviour of health suppliers.

These espoused that duopolists would locate to position a linear market so as to gain more than half the market area by locating at the quartiles. There would be areas where the market would be doubtful, where competitors vie for the market, while retaining a monopoly control over areas of the market that lie furthest from their rivals. On the contrary, Hotelling (1929) proposed that given a linear market and certain conditions, suppliers of services would locate at the centre where demand for a good or service is inelastic. Important assumptions are that movement costs changed proportionately with distance, supply costs were fixed, supply units were of equal size, demand was evenly distributed in space and that all consumers had the same demand schedule. These types of location strategies are applicable to the location decisions of health facilities in the urban areas.

2.3.1 Analysis of Demand in Spatial Terms

In traditional location-allocation theory, the distance decay function is a phenomenon which relates rate of consumption to distance from the service. It is based on the assumption that demand has an element of elasticity. If this is so then we may expect the relationship between use of a health facility and the distance of consumers from the point of delivery to be of the type illustrated in figure 3a below:

Figure 3: Theoretical relationship between rate of consumption of a health facility and distance of consumers from it.



It is implicit that the benefit or utility, a patient receives from the service depends on intervening distance, and the demand cone may be derived as shown in figure 3b above. If the services of the health centre are increased to that of a District Hospital, then the size of the service area needed to meet the threshold demand requirements of the facility will be larger. Verdich (1975, p22) pointed out that the distance between the marginal beneficiaries and the health facility will increase as the benefits they receive decline because of increased costs of gaining access. Tiebout (1978, p87) has argued that since there are unequal marginal utility functions for families and as there is a downward sloping demand curve, public goods of which primary health care services are an example, are local non-profit goods. Thus the nature of families' demand for RHCs will have a marked impact on the demand curve for a given health centre.

Interesting notions of health capital and demand were introduced by Grossman (1972) whereby health services are seen as both a consumption good and an investment commodity. Thus, sick days are disutilities. An increase in the stock of health, which is seen to deteriorate over time with increased age, reduces the time lost from productive activities, and the monetary value of this reduction is an index of the return to an investment in health. Demand for health service facilities is thus a demand for good health.

There are a number of limitations in using traditional location theories of the type discussed above in seeking explanations of the location strategy of RHCs. It is usually assumed that the demand for health services is homogeneous spatially, that pricing systems and service capabilities per personnel are the same, and that suppliers of services are revenue maximisers. It was therefore,appealing for this study to utilise the traditional theories in a descriptive sense and through empirical analysis of actual patterns, inductive inferences about location strategies of primary health care facilities were made.

In summing up this section on supply theories, it can be said that basically two types of the so called location-allocation theories can be distinguished in accordance to their objectives. Rushton (1984) made a distinction between spatial equity and spatial efficiency theories. The spatial equity theories attempt to find spatial locations for R.H.Cs in such a way that the travel distance of those living farthest from the facility is minimised or that a maximum percentage of the population or even the entire population is within a specified distance or travel time of the facility. Therefore, the objective is not only to see an equitable distribution of facilities over a geographical area but the outcome of the application of these models is also significant. On the other hand, the spatial efficiency theories stress the efficiency aspects of health service provision. They seek to find locations

of health facilities in such a way that the total aggregate travel (cost and time) of, or to consumers of the services is minimised or that total demand is minimised. This implies that locations of health facilities will be found close to main concentrations of population, leaving people residing in more remote areas less serviced.

2.4 Literature Review

Studies done before on health service provision show that maldistribution of rural health facilities and gross disparities in access opportunities occur in a fee for service framework. There exists what Hart (1971) called the inverse care law which states that the availability of good health care tends to vary inversely with the needs of the population served. He acknowledged that this was due to the operation of market forces, and the cultural and ideological superstructure that has permeated the health profession. What is puzzling in the Zimbabwean rural health facility planning was that, maldistribution and disparities in access opportunities exist, yet the fee for service market framework does not exist.

A study carried out by Herbst (1991) pointed out to the evidence of ethnic and class claims in the supply of R.H.Cs, but these did not have a major impact in the mal-distribution of primary health care facilities. Ethnicity, however, influenced the supply of social services and has severely affected other government allocative functions. Herbst (1991) has faith in the spatial equity and efficiency models, in that they endeavour to locate facilities at an optimal spatial location. Ethnic bias has not been a major factor in accounting for the maldistribution of R.H.Cs because the planning and provision of these facilities has been effectively devolved to the territorial provincial and district levels. This devolution of planning and decision making powers meant that fundamentally all disensus in the allocation of health services by

government rests with, at the provincial and district levels, among each ethnic group, rather than at the national level, between ethnic communities. His study noted that:

> Ndebele (ethnic group) competed against the Ndebele for health centres at the Matabeleland North or Matabeleland South provincial offices, rather than against the Shona (ethnic group) in the head office of the Ministry of Health and Child Welfare (Herbst, 1991, p176)

Therefore, ethnic allegiances are not very significant in endeavouring to explain the maldistribution of primary health care facilities, since the decentralised planning and decision making structures has reduced the importance of these identities to leaders and communities whose primary concern is to convince the government to provide facilities for their village or ward.

Herbst(1991) attributed that the only persuasive explanation which can account for the unfair distribution of R.H.Cs in the Rural Districts of Zimbabwe, was the prevailing rural local government system which continued after independence. There were Rural Councils which covered white commercial farming areas on the one hand and District Councils which covered black communal areas. The former Rural Councils concentrated on building all weather roads and they resisted heavily government efforts to provide health services to their workers. Herbst (1991) also documented obstructionism by white Rural Councils as a major determinant factor for explaining the disparities in supply and consumption of primary health care. The government was prepared to train community health workers and organise equipment, while the white commercial farmers only needed to pay for a bicycle and an allowance of Z$36 a month. The white commercial farmers resisted all these efforts noting that if they were paying this allowance, then they were entitled to be given hiring and firing privileges. Inspite of the fact that Zimbabwe is divided into several different

communities that vary tremendously in strength of their ethnic identification, ethnic biases have not contributed to disparities in the distribution of rural health facilities.

It is Sithole (1982, p9) who posited that planning and decision making in Zimbabwe has ethnic overtones mainly because of the ethnic composition in government and its bureaucracy. He viewed ethnicity as a social phenomenon in a power situation in a modern setting which inevitably infiltrates the allocation process.

Sithole further espoused that social services in the Ndebele speaking rural districts compared unfavourably to those existing in the Shona speaking areas, the dominant ethnic group in Zimbabwe. This, however, bears testimony to the infiltration of irrational aspects in the administrative and planning processes. He cited Tsholotsho, Bulilima-Mangwe, Gwanda, Binga and Nkayi rural districts as being undeserved in terms of public facilities.

On the basis of a report on the social condition in rural districts in Zimbabwe (C.S.O, 1982), Zinyama's (1987) study of the differences in the provision of infrastructure, commercial and social services in the rural areas, used a methodology involving the application of location quotients for various development indices to assess the inter-district variation in the supply of services per capita. Among the services described were education and health. The education index consisted of a number of primary and secondary schools, while the health index was made up of three variables; number of approved clinics, the number of hospital beds and the number of nurses and medical assistants in approved health centres and hospitals.

In comparing the various rural districts, the five aforementioned rural districts by Sithole(1982) scored lower than average on both the health and education indices. This demonstrated the relatively lack of rural health and educational facilities in the

predominantly Ndebele speaking areas, probably reflecting irrational considerations in the supply decisions of public goods. The findings of Sithole's (1982) study were confirmed by the results of the 1982 census, which reflected that the five rural districts had the lowest distribution of primary health care facilities.

The overall picture of all the development indices Zinyama (1987) used showed that most of the rural districts in Matabeleland provinces were among the districts with a slightly lower than average situation (location quotient between 1 and 1.24) Three indices, accessibility, commercial activity and extension services were above the national average , while health and education were below.

To round up this chapter, it can be noted that its brevity lies in the range of the location-allocation theories addressed. This range of theoretical explanations underlying the supply of social services are very valuable in providing insights into the supply and consumption of public goods such as primary health care. It is hoped that this theoretical overview has managed to entice the reader to a number of interesting theories that have currency among planners and non planners, or the ways in which a fair distribution and consumption patterns of primary health care facilities can be achieved. On the same note, this chapter has provided a digestible introduction towards linking the various theoretical possibilities so that social services could be allocated fairly among the beneficiaries.

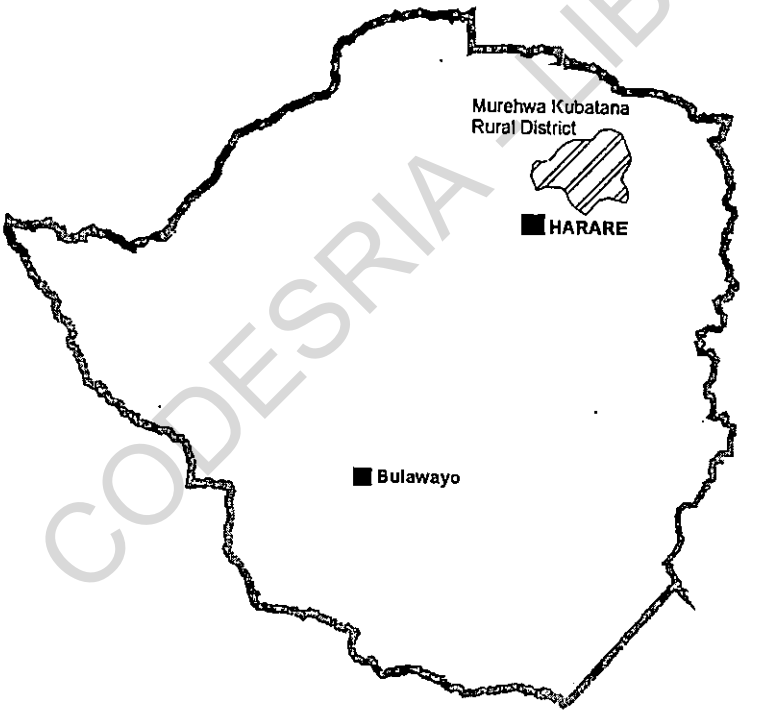
CHAPTER THREE

3.0. Materials and Methods

This part of the study presents the research methodology used by this research in investigating the supply and consumption of primary health care facilities in one rural district of Zimbabwe. It shall further progress by first outlining the study areas, then furnish the reader with the methods used to gather the information for this research. Lastly, it shall account for the difficulties faced by the study in gathering the information.

3.1 Murehwa Kubatana Rural District: The setting.

Map 1 Locational map of the rural district.



Zimbabwe is a Southern African state. It is a land locked country, bound by Zambia in the northwest, Botswana in the southwest, South Africa in the south and Mozambique in the east. Murehwa Kubatana is part of the 57 rural district councils in Zimbabwe.

Murehwa Kubatana rural district is in Mashonaland East Province. It lies in the north eastern part of the country and is about 120 kilometres from Harare. The district is basically rural and eighty three percent of its population relies on agriculture for a living, only 67 percent of its land area is arable (Zimbabwe Agronomical Report, 1991, p7). It has a total population of 152 505 according to the results of 1992 census.

The district experiences a hot and dry climate. The annual rainfall totals range from 650 to 800 mm with a mean annual of 640mm. The mean annual temperature is 20 degrees celsius. The landscape is generally rolling with a series of fairly long arable areas of moderately flat terrain. The soils in the district are derived from granite with minor intrusions of dolerite, giving rise to medium to heavy textured soils. These dolerite derived soils are moderately shallow with sandy clay loam top soil overlying clay sub-soils and are of medium to high inherent fertility. The district is generally covered by woodland savanna with grasslands found on low lying ground. The dominant tree species comprise Brachystegia speciforms and Julbenadia globiflora which includes the Musasa and Munondo woodlands. Colophospermium Mopani are often found in drainage depressions and on the fringes of drainage lines. The grass cover is good throughout the district with a dominance of Hyperrhenia, Heteropogon and Digitaria species.

In Murehwa Kubatana rural district, drinking water is polluted in many areas and often must be carried long distances. There is a prevalence of water borne, water based and water washed diseases (UNICEF,1993). The main causes of infant and child death in the district are diarrhea, chest infections and other communicable diseases (Min. of Health, 1994,p57). Many of these diseases are preventable, as are the major causes of adult deaths, which include communicable diseases such as malaria, trachoma, fungal infections, leprosy, tuberculosis, accidents and maternity related diseases.

All the rural districts in Zimbabwe, not withstanding Murehwa Kubatana are relatively well served by national all weather roads and public transport. A regular bus service connects the rural district centres with major cities and towns.

3.2 Research methods

The study utilised the qualitative Participatory Learning Methods (PALM) in gathering data on the supply of R.H.Cs. both at the level of planning and implementation, and understanding the primary health situation including diseases and consumption patterns. PALM comprise a host of participatory research methods that goes beyond rural appraisal, into a shared analysis and understanding of rural situations. It emphasises participation of the rural people in investigation and their active involvement, and ongoing presence in a defined area not as "patrons" and "benefactors", but as "catalysts" and " partners" in investigation and development. This in turn would lead to research and development activities that is creative, productive, sustainable, implementable and understandable by the rural people, development officials, and scholars (Mascarenhas,1993,p10).

3.2.1 Research design and data collection

The research was designed in two parts. Part one comprised of the selection procedure and part two with the methods of data gathering.

Part one

Since the issues and people in which this research was interested in are rarely included or identified in most official records in the country, utilisation of a non random, deliberately selective purposive sampling procedure was found to be the most appropriate. The procedure was thus subjective and rational in the sense of

being directly focussed on a specific population, the undeserved rural communities.

A purposive sample of the rural district was taken from an administrative map drawn to 1: 2500 in scale. Density of population and prevalence of communicable diseases was the guiding criteria of the purposive selection. Fifty percent of the wards (a spatial area over which the ward development committee has jurisdiction) in each rural district, was chosen from the District Registers so as to ensure that they were representative of the population in the district.

Part Two

Data collection was employed first at the grassroots (ward) level, where the researcher visited the wards selected in the district. A layout of a PALM programme was drawn up which was applied uniformly in all the wards visited (see Appendix 1). The first schedule of the PALM programme involved introduction of the researcher and villagers to one another where the researcher performed some village tasks. The purpose of this was to create an environment of friendliness and equality as well as demonstrating the seriousness of the researcher's willingness to learn.

The second schedule involved the identification of key informants in each ward visited. These were identified through a stakeholder analysis. Identifying the key informants using a stakeholder analysis proved to be useful because it presented all those who had a stake in primary health care planning and provision. The criteria also endeavoured to offset person biases, such as those of meeting men as opposed to meeting women, and also gave the researcher the opportunity to source information from people who are knowledgeable about primary health care planning and provision. The criteria followed the following procedure:

1. Brainstorming on stakeholders (see Appendix 2). The researcher began by brainstorming on all those who had a stake in primary health care service planning and provision.

2. Verifying with authorities or communities concerned (see Appendix 3). In this phase, the researcher verified the roles of the various stakeholders in supply decisions and delivery of primary health care services. For fear that government medical authorities would give the job descriptions of the stakeholders, it was found wanting to cross-check with the community as well, of what they see as their roles in primary health care service provision.

3. The researcher then made an inventory of stakeholders and their various roles (see Appendix 4)

4. A stakeholder analysis was undertaken (see Appendix 5) finally, the key informants were identified by simply focussing on the vertical column of roles.

Though this criteria was time consuming to compile, it had the merit of providing a systematic and rational way of identifying key informants for this study.

Key informants in each ward visited were asked to draw two types of maps, one depicting ward layout and health centres. The other, a social map showing diseases and health patterns like chronic health cases, the handicapped, family planning cases, vaccinations and accidents. Markers and A3 size manilla papers which were copied using Corel Draw and photo-reduced for incorporation into this research report, were provided by the researcher. Other villagers were not inhibited to take part in the participatory mapping exercise. The villages were also asked to rank their needs in terms of primary health care facility planning and provision. Indepth techniques of questioning and eliciting responses from the

villagers were employed to seek explanations on data presented on the maps. By asking each ward to draw a map enabled the easy summarisation of data and cross-checking of information, while participation by the villagers made way for corrections and re-corrections as well as facilitating the process of analyzing the data.

The third schedule of the PALM programme comprised of conducting informal interviews with the key informants in the form of group discussions. A flexible guided checklist of questions was administered on the groups so that they presented their local sentiments on the supply and involvement in the planning and siting of R.H.Cs. The researcher handed over the stick to the group members and thus only directed the discussion to restrict it to the area under investigation. In this schedule, notes were taken on what the participants said as well as recording the discussions and observations.

From this phase, the researcher visited all the R.H.Cs in the two rural districts and informally asked patients the distance travelled, diseases they were to be treated and coded the number of visits each patient made. Questions relating to any other healer visited were also asked.

The last phase of primary data collection involved visiting the district and provincial levels where opened ended informal interviews were conducted on the district and provincial health personnel, local government personnel, sector ministries and other Non Governmental Organisations' staff operating at these levels.

Secondary data was collected from reports of sector ministries and NGOs involved in the planning and implementation of primary health care facilities. Minutes of the Rural District and Provincial Development Committees proved to be a good source of multi-sectoral spatial based data. Population data and the current distribution

of R.H.Cs were obtained from the Central Statistical Office and the Health Statistics Department within the Ministry of Health and Child Welfare.

3.3 Limitations of the study

The study faced some short-comings. These related to the researcher's fatigue as a great deal of walking was involved within the villages. Moreover, some respondents were not willing to provide sensitive information, especially that pertaining to family planning, sexually transmitted diseases, pre-natal and post-natal care. Other limitations also related to contacting the appropriate personnel in the local government structure, sector ministries and NGOs, thereby necessitating revisits. Accessibility to some government reports was also another major hurdle which the researcher faced. However, some of the reports were confidential and others non-available. Those reports which were available to the researcher became so after revisits and long waits.

In a nutshell, one can conclude this part by pointing out that the materials provided by the Ministry of health, Department of Physical Planning, and NGOs alike through the progress reports and documents in the primary health care sector appeared not to have been completed in a co-ordinated and systematic way, nor provide enough data to allow an adequate analysis of the planning provision of R.H.Cs. The participatory learning methodology proved to be of great value in terms of sourcing indepth data and reliable information from the community. It also enabled the researcher to be part and parcel of the communities, divulging information without fear or suspicion. However, the drawback of PALM was that the researcher was viewed by the community as a problem solver, who could solve the problem of unfair supply of primary health care services.

CHAPTER FOUR

4.0 Research findings

This part of the study presents data of several investigations into the supply and consumption of health facilities carried out within the framework of the primary health care approach adopted in Zimbabwe in 1982, as well as the different diseases obtaining within the rural districts. Before the study discloses information on the findings, this chapter shall first avail the reader with the ways in which the gathered data was analysed and processed.

4.1 Data analysis and processing

The strength of PALM rested in its ability to allow preliminary data analysis in the field as the researcher collected the information from the participatory respondents. The free flow of views and inputting of data in the participatory mapping and group discussions enabled the data to be analysed and processed as the villagers were correcting and re-correcting one another on information which was presented.

However, other sets of data were first classified, coded, processed and analysed using a software package called PARADOX. That data not amenable to computation was summarized and interpreted using community maps which were drawn by the villagers themselves.

Population data was analysed using a software package under Ottensman population cohort survival programme called Cohort.bas. Population projections for the two districts were made in order to discern future service capacities and distribution of R.H.Cs, as well as to calculate the coverage rate of each primary health care facility.

The package was started by first loading GWBASIC (typed GWBASIC and entered), which is provided on the same diskette as the Cohort.bas programme. The specific programme was loaded by pressing F3 and typing Cohort.bas. After entering, the programme was started to run by pressing F2.

The number of cohorts in the population of the two rural districts, the interval in each cohort, the projection period (ten years) and the age structure was entered. After this, population figures for the base year, that is 1992 were entered in absolute numbers, first for males and lastly for females. Subsequently, survivorship rates and birth rates were entered again by sex. As males do not give birth, zeros were entered for male cohorts. For the female cohorts, the Age Specific Fertility Rates (ASFR) had to be entered, but corrected for the projection period. The programme was then informed about the proportion of births that are female.

Cohort.bas subsequently provided for three migration options:

1. No migration
2. Absolute migration
3. Migration rates

The second option was chosen where absolute numbers of net migration were added to or subtracted from the population as projected on the basis of natural increase. To this effect, positive and negative migration figures were entered for each cohort.

Cohort.bas then displayed the information entered on the screen in order to check for mistakes. The population figures were shown for the base year and the first projection period (first five years, that is 1997). Subsequently, one is asked whether a projection for the next period desirable (up to the year 2002) by typing Y. After finishing the projection, the programme asked whether to terminate

or to change some data and repeat the analysis. Four options for change existed: population, survorship rates, birth rates and migration. By selecting population a repetition of the projections were made.

Cohort.bas has a number of advantages. It is simple to operate and one is able to get results very quickly. In addition, it does not suffer from the "black box" effect like other software packages. One is able to see clearly what the programme does with the original data. It's advantages is that there is no good edit facility. Mistakes can only be corrected at a later stage when the programme asks for a repetition of the projection.

4.2 R.H.Cs in Murehwa Kubatana Rural District

In Murehwa Kubatana rural district, there are a total of fourteen R.H.Cs. The table below illustrate the number of R.H.Cs in the district.

Table 2 R.H.Cs in Murehwa Kubatana rural district

No	Name of R.H.C	Owne rsip	No. of beds	Built after 1980	Elect	Piped Water	Tel	Fenced
1	Chitate	Gvt	-	Yes	No	Yes	No	Yes
2	Chitowa	Gvt	-	Yes	No	No	No	No
3	Jekwa	Gvt	-	Yes	No	No	No	Yes
4	Kadenge	Gvt	-	Yes	No	Yes	Yes	Yes
5	Madamombe	Gvt	-	Yes	No	No	No	Yes
6	Munamba	Gvt	-	Yes	No	No	No	No

7	Dandara	RDC	-	No	Yes	No	No	Yes
8	Dombwe	RDC	-	No	No	Yes	Yes	Yes
9	Kadzere	RDC	-	No	No	No	Yes	Yes
10	Nyamutumbu	RDC	-	Yes	Yes	No	No	Yes
11	Shambamuto	RDC	-	No	No	No	No	Yes
12	Macheke	RDC	-	No	Yes	Yes	Yes	Yes
13	Virginia	RDC	-	Yes	Yes	Yes	Yes	Yes
14	Waterloo	RDC	-	Yes	Yes	Yes	Yes	Yes

* Gvt - Government
* R.D.C - Rural District Council

The post colonial government made a lot of effort to construct new R.H.Cs in Murehwa Kubatana rural district. Nine R.H.Cs were built after independence, and this clearly showed the government's commitment towards alleviating the health standards of the rural people. However, the majority of the R.H.Cs do not have electricity. Only four use hydro electric power and one is solar powered (Dandara R.H.C) . The majority of them are fenced.

4.2.1 Supply of R.H.Cs and villager's involvement

The study found that the supply planning of primary health care facilities have changed from sectoral planning, which was short term oriented and determined largely by financial allocations from the treasury, to an integrated planning procedure which involved grassroots planning and administrative structures (VIDCO and WADCO). This integrated planning procedure required the cooperation of other ministries and NGOs. The planning commenced from below, where the local communities identified their health needs through their representatives of the village and Ward

Development Committees. Their needs were presented to the District Medical Officers (DMOs) who in turn presented the peoples' proposals to a full Rural District Council meeting. From this stage, the proposal for a new R.H.C are taken to the Provincial Medical Director (PMD) who then make priorities concerning the supply and distribution of the facilities. After prioritising, the PMD forward his recommendations to the Ministry of Health, which will contact the Ministry of Local Government, in which the Department of Physical Planning will select the appropriate sites for the new health centres. However, siting will only be done when funding for the health centre is approved by central government.

In the planning and siting of the R.H.C the planners have their own guidelines and technical standards which they follow. Adherence to these guidelines and standards have resulted in limited community participation in selecting the site on which the R.H.C is going to be constructed. In communal areas, the local communities are given a chance to earmark three sites of their choice. The planner will go out to the community to inspect the two or three sites which have been identified by the community.

Rural health facility planning process in resettlement schemes is quite different to that in the communal areas. The planner planning for the provision of a R.H.C in a resettlement area will proceed by viewing Contact Points (Aerial Photographs) under a stereoscope which are 230mm x 230mm at 1:25 000 in scale covering an area of 3300 hectares on the ground. The planner will then extract physical data relating to the terrain of the land. This is followed by demarcation of possible sites. The planner will then translate this information onto a bi-two enlargement or a mosaic. He/she will make a field visit to inspect the suitability of the sites he/she has marked on the mosaic. An important consideration which the planner bears in mind is the amount of land required for the service. For communal clinics the standard normally used is

4 000m^{2} ^{3} or 0.04hectares while in resettlement schemes the stand size should be 7 500m^{2} ^{3} or 0.75 hectares. The standard is set at these levels in order to accommodate all the waiting patients and anciallary buildings like waiting shelters. The planner will then select one site based on the principles of water and land availability, accessibility and centrality. They also consider the relief and land stability. The decision will be communicated to the relevant sector ministry or agency, together with diagrams and site plans. At this stage money for the actual construction will be released and the implementation can start. The local communities will be heavily involved at this stage, particularly through brick-making. In resettlement areas, there is no element of community participation as most of the resettlement schemes are planned well before settler emplacement. In existing schemes, even though the number of families in a particular area warrant the provision of a health facility, the local communities are by-passed in the planning process. Maintenance of all infrastructure planned is the responsibility of DDF Resettlement and Construction Maintenance Divisions.

The conclusion drawn from the supply of R.H.Cs is that the decision to have a R.H.C in a particular district rests with the D.M.O. and the P.M.D. at the district and provincial levels respectively. All planning decisions pertaining to the supply of R.H.Cs go through these cadres, who are medical doctors by profession. They have internal/external political power in terms of access to the Minister of Health and professional association's group pressure. There is, therefore, no distinction between the medical and planning or administrative roles of the DMO and the PMD in rural health service provision. To use these medical practitioners to make planning and administrative decision on district and provincial primary health services complicates the starting point where the planner is supposed to begin. Moreover, doctors often gain administrative positions without any relevant experience, knowledge or qualification in this field. In addition, the study

found out that there is a strong preference among health facility suppliers to locate R.H.Cs in or very close to business centres. Ninety percent of all the R.H.Cs in the district have been constructed in the immediate vicinity of a business centre. Community involvement in planning is limited to token levels of participation, whereby they put forward their health needs to the DMO and PMD through the VIDCO and WADCO. When community involvement is restricted to "informing" and "consultation", there is no follow through, no muscle, hence no assurance of influencing the distribution of primary health care facilities. This kind of community involvement allow the resource poor villagers to air their health needs, but retain for the power holders (medical doctors and planners) the right to decide on distributional aspects and provision of R.H.Cs.

4.2.2 Consumption of R.H.Cs

The R.H.C based informal interviews in particular, focussed on three categories of variables as determinants of consumption. These were, first, factors which were taken as characteristic of the primary health care delivery system, especially those determining the entrance to it, or its accessibility, such as the location of health centres. A second category of variables studied are what the study had termed factors of modernisation such as education, religion and occupation. A third category, also describing characteristics of the patients, related to aspects of the disease.

4.2.2.1 Financial accessibility

Financial aspects were not a major determinant of consumption of a R.H.C mainly because primary health service is consumed with no fees being levied on the patient. All the R.H.Cs in the district did not charge fees for treatment. The only area where fees were levied was on contraceptives and maternity. However, the maternity

fees are quite nominal and these did not act as a barrier to the consumption of primary health care facilities.

It is the church related hospitals together with district hospitals that charged fees for treatment. A brief look at the figures representing the consumption of R.H.Cs against various district hospitals in the district demonstrates the effect of these measures on the entrance into the hospitals. As depicted in the tables below, the patients who attended district hospitals are outnumbered by far with those attending R.H.Cs.

Table 3 Average daily attendance per month of outpatients in R.H.Cs and District hospitals (Murehwa Kubatana Rural District)

RURAL HEALTH CENTRES																District & Church	
Mth	Yr	Chitate	Chitowa	Jekwa	Kadenge	Madamombe	Munamba	Dandara	Dombwe	Kadzere	Nyamutumbu	Shambamuto	Macheke	Virginia	Waterloo	Murehwa	Musami
Aug	1994	421	586	402	317	306	322	339	328	326	309	340	298	351	853	504	446
Sep		453	638	328	391	329	316	307	306	394	303	312	309	322	788	509	502
Oct		559	518	419	361	345	304	391	341	365	302	306	381	356	897	522	500
Nov		320	412	371	304	362	319	303	322	367	307	307	343	208	706	361	261
Dec		618	629	461	401	371	378	341	361	394	308	301	401	299	801	194	186
Jan	1995	526	481	501	381	328	366	351	329	312	319	305	285	309	805	108	111
Feb		533	453	437	332	392	391	301	300	314	321	299	264	364	761	165	114
Mar		429	594	328	344	388	354	382	306	392	304	298	289	345	807	209	118
Apr		420	616	309	319	342	321	364	312	402	302	307	304	321	821	206	192
May		448	592	361	371	401	300	301	319	419	308	303	321	325	849	543	489
Jun		317	451	345	362	463	429	304	308	328	333	304	305	304	851	562	506
Jul		324	389	323	361	301	326	340	304	367	329	297	361	307	861	589	573
Total		5368	6359	4252	4244	4328	4126	4024	3836	4380	3745	3679	3861	3811	9800	4472	3998

Source: Annual Report of Provincial Medical Director, Mashonaland East Province, 1994

The chances of consuming the district hospital were further diminished by the fact that it is centrally located and to visit it require money for transport, which most of the villagers did not have. District hospitals (both church and government) reported an increase of outpatients during the months of October, which coincided with the availability of cash, mainly from crop sales.

4.2.2.2 **Geographical accessibility**

Another important factor influencing the consumption or rate of attendance to R.H.Cs was the location of the facility in relation to the hierarchy of settlement patterns. Almost all the R.H.Cs covered by this study are located in or very close to business or rural service centres. In most cases, these business and rural service centres are located along major transport routes, making the villagers to travel more than the stated maximum distance of eight kilometres. This was further exacerbated by natural barriers such as mountains and rivers which will be flooding during the rainy season, making it almost impossible for patients to consume primary health services.

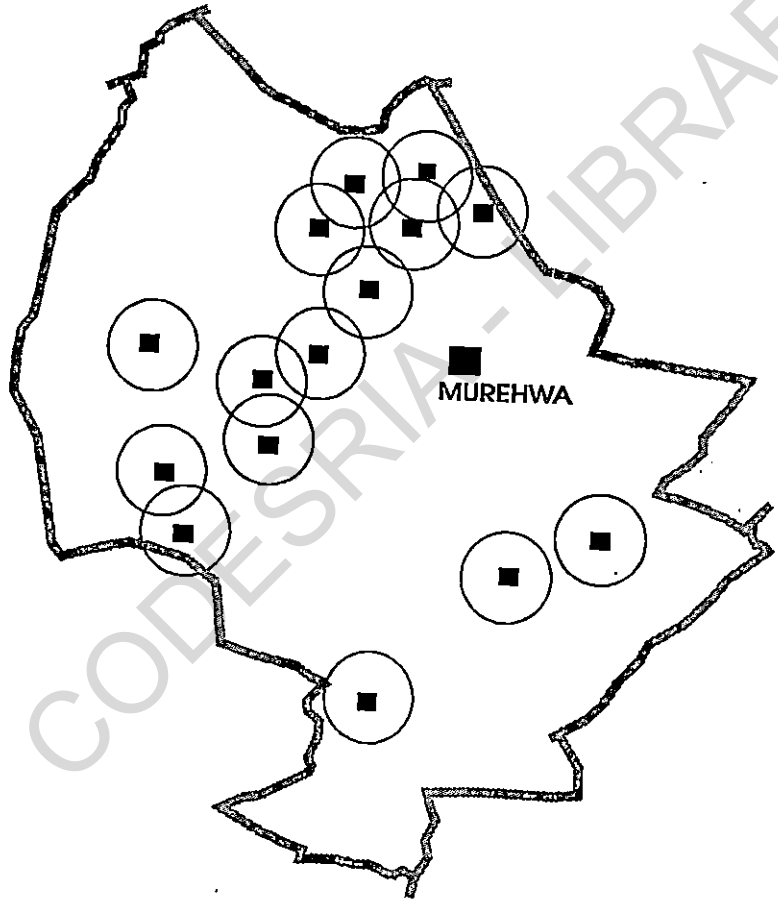
The study also found that access opportunities to R.H.Cs in the rural district are not adequately being addressed by the health planners, mainly because the methods and criteria of site selection are not holistic. Site selection is failing to take into cognisance the relationship between the proposed sites with existing R.H.Cs. New sites are being selected without vision and independently, with the planners mostly obsessed with the adherence of planning standards such as land and water availability, flatness of terrain and quietness of the area. Consideration of the existing primary health care facilities and their distance to the proposed new sites are equally significant if fair access and consumption patterns are to be realised. The study also found out that there were different patterns of consumption of the rural health facilities among the rural population and also among

villagers living at different distances from the individual health centres. Firstly, an attempt was made during the health centre informal interviews to establish the centres' service, or catchment area by means of a patient-origin analysis, that is patients were asked where they were coming from. It was realised that all health centres received the bulk of their patients from within a six kilometre radius of the facility. Several cases of patients coming from a ten to twelve kilometre radius especially at Chitowa, Dandara, Waterloo, Jekwa, Shambamuto, Madamombe and Nyamutumbu R.H.Cs in Murehwa Kubatana rural district were reported. Most respondents noted that these were the nearest health centres which they can go.However, the distance decay curve applies here, that the number of patients attending these centres from such distances represented relatively small proportions of the total attendances. This means that most of the patients were inhibited by the long distance they had to travel. The only exception in this case was Waterloo health centre where people attended from a distance of as far as twelve kilometres because of the quality of services provided. Medicines and drugs were always available, and the medical staff at the centre were always readily available.

The spatial distribution of R.H.Cs is not, therefore, equal among the rural population. The problems experienced by the villagers is gaining access to primary health facilities appear to have three main causes: (i) travelling difficulties arising from the natural barriers such as mountains and rivers as well as the high cost of travel and inadequate public and private transport such as scotch carts, wheel barrows, bicycles and the like, (ii) centralisation of health services. Of all the villagers in the rural district 100 percent had no readily available doctor, chemist, dentist and optician. There are virtually no facilities for these services. Similar domiciary support services provided by both health and personal social welfare, are not frequently found in these rural districts. The problem of gaining access to R.H.Cs has been further exacerbated by the unfair distribution of these facilities.

This is depicted in map 2 below:

Map 2 Distribution of R.H.Cs in Murehwa Kubatana rural district within 8 km radius.



As illustrated in Map 2 above disparities in access to primary health care facilities cause the most additional hardships for those villagers which are in the greatest need of supportive primary health services. In the district disparities in access to facilities is much worse for certain social groups than for others. For those groups who are potentially most in need of primary health care service have the greatest problems of access. The old aged (60 years and over) have much poorer access to health services than the economically active villagers. It is well accepted that this is the group within society that suffer the bulk of mortality and excess morbidity. By any standards disparities in supply and consumption of primary health facilities in the rural district will continue to remain low and the poor accessibility for the elderly villagers in particular is most distressing.

Primary health service statistics in the rural district demonstrate that supply per head of population is very far below the national average. The case of Murehwa Kubatana district clearly showed that they are grossly undersupplied in terms of primary health care facilities. Within the rural district, there is a concentration of expenditure on the district hospitals, yet these are where few people visit for treatment. In the 1995-96 fiscal year, the government district hospital which have an establishment of 87 beds received virtually the same budgetary allocation as the entire primary health services for all the R.H.Cs in the rural district.

Table 4 Budgetary allocation of Murehwa district hospital and primary preventive services for the 1995-96 fiscal year.

Service	Revenue allocation Z$
Murehwa	465 000
Primary Health Centres	420 000

Source: Ministry of Health, Epidemiology Department 1994

The expenditures for primary care facilities are very far below the national average per capita.

4.2.2.3 Modernisation factors

Acculturation studies applied to the field of health often assume that consumption of rural health centres is related to such factors like education, religion and industrialisation. This study found out that there were no relationship between the consumption of a centre and such factors as education and industrialisation. Nevertheless, religion has appeared to have a direct correlation with consumption of the primary care facilities. Members of the Apostolic sect such as those from Johanne Masowe could not consume modern health services for religious reasons. They believed in spiritual power whenever any member of their religious affiliation became sick. There is, however, no evidence from the study that church hospitals attracted relatively more christians than non christians. Non educated villagers and those who had a strong traditional background also consumed primary health services.

4.2.2.4 Morbidity related factors

Other factors influencing the consumption of a health facility were those concerning the pattern of the disease, the epidemiological components such as age and sex, and the severity of the disease. The diagnoses which were recorded for the patients interviewed reflected a pattern of diseases that are common within the rural areas of Zimbabwe. Infections and parasitic diseases, disease of the respiratory and digestive systems of the sense organs and skin diseases accounted for most of the patients' morbidity between the various health centres and district hospitals.

The study also found out that it was mostly children and women who attended the health centres than men. Variations in age and sex of patients can largely be attributed to the differences in the epidemiological pattern of the diseases. Young children (those under five years) and pregnant women are known as high risk groups in the population. This is depicted in the table below.

Table 5 Percent of patients consuming R.H.cs by sex in Murehwa Kubatana rural district

R.H.C	Females	Children	Males	Total
Chitate	61	23	16	100
Chitowa	47	38	15	100
Jekwa	51	15	34	100
Kadenge	65	11	24	100
Madamombe	42	27	31	100
Munamba	36	28	36	100
Dandara	41	29	30	100
Dombwe	39	37	24	100
Kadzere	36	41	23	100
Nyamutumbu	47	20	33	100
Shambamuto	39	32	29	100
Macheke	47	19	34	100
Virginia	32	43	25	100
Waterloo	32	38	30	100

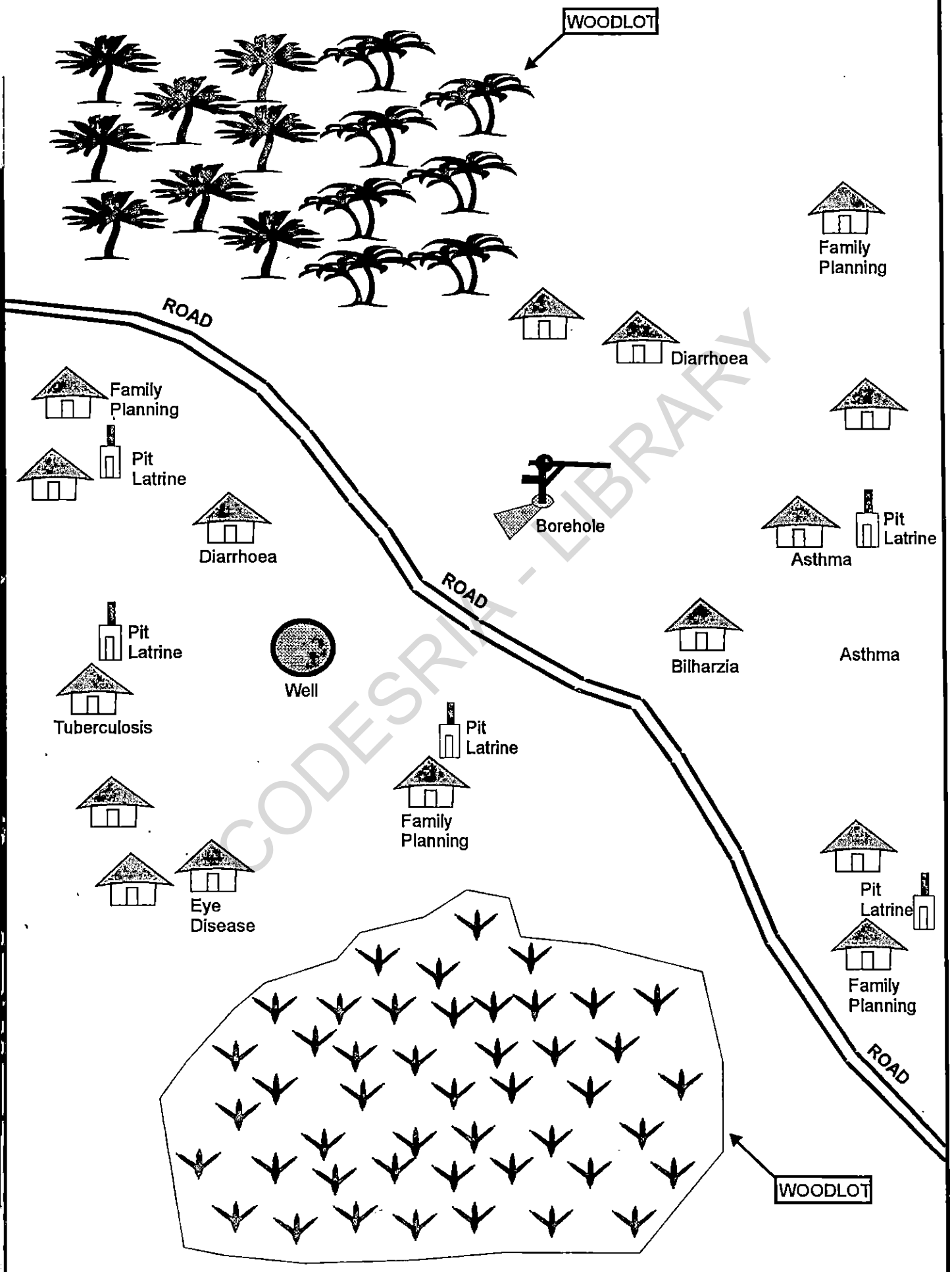
These conditions affect the pattern of consumption of health facilities and explain why the age and sex distribution of patients does not parallel that of the population of the districts. There was also no evidence from the study that more serious patients tended to come to the primary care facilities from further distances. The severity of the diseases was, in general, not a major determinant of consumption of a facility.

4.3 Diseases reported by the people

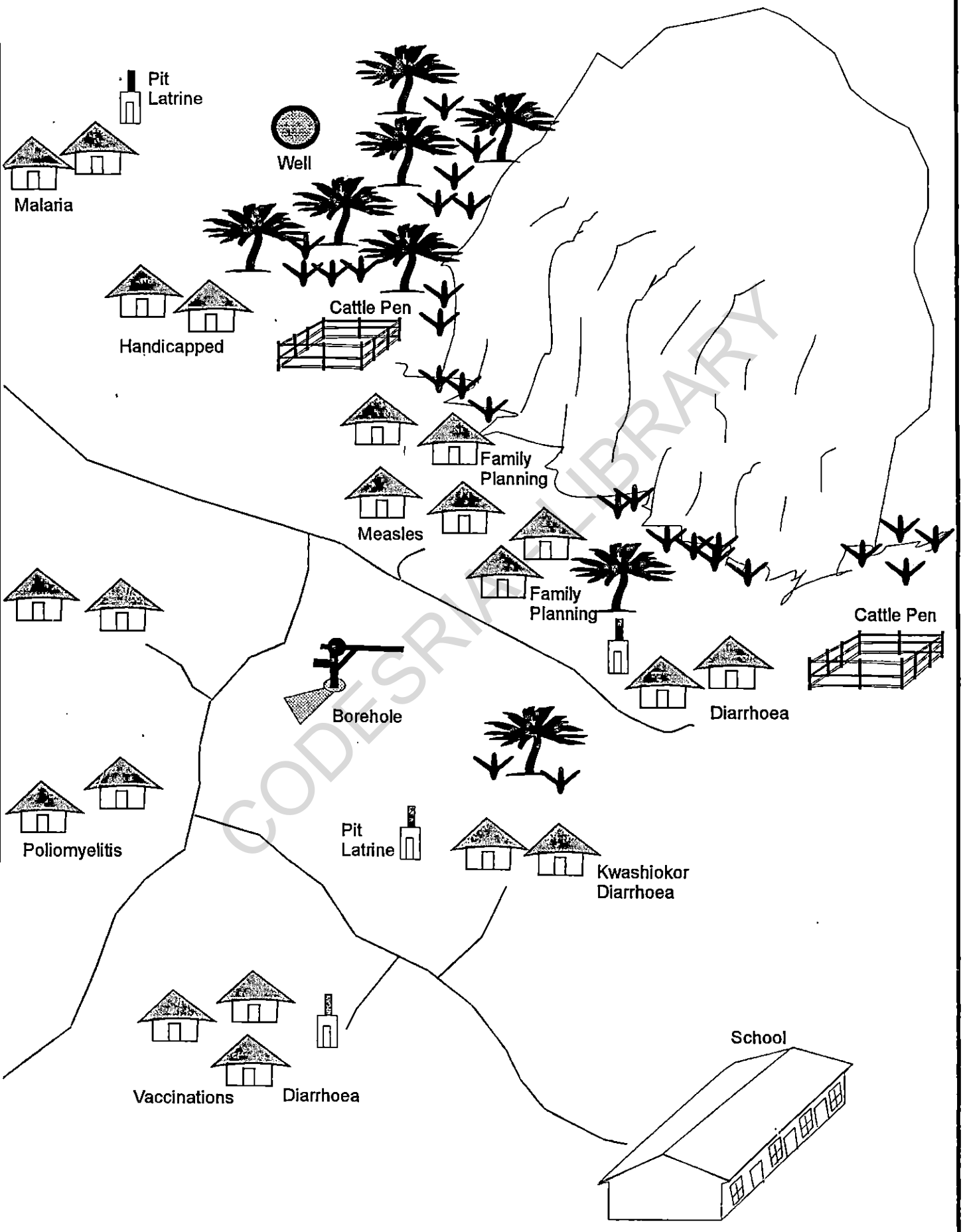
During the R.H.C informal interviews, the villagers reported several types of diseases to which they attributed a variety of causes. However, some of the diseases were identified during the

participatory mapping exercises. Theses diseases ranged from "general" or "common" diseases to those of psycho-neurotic disorders. In the social maps drawn by the villagers, it was quite evident that the villagers knew of any person who was sick in their village and they assisted each other with either advice on traditional herbs or encouraged the sick villager to attend a health centre. The VHWs were also quite knowledgeable of those people or chronic health cases in their villages, and they provided good counselling and primary care services to the patient. The social maps below illustrate how knowledgeable the villagers and health workers were aware of each others' health conditions.

Social Map 3 Drawn by Villagers of Ward 6 (Chitowa North) Showing Village 1 Layout



Social Map 4 Drawn by Villagers of Ward 30 (Macheke)



The relevant social information pertaining to diseases which have been suffered by the villagers has been clearly presented on the social maps.

From these social maps, health cases are visibly presented. These cases were confirmed by the VHWs as being correct, particularly family planning, vaccinations and diarrhoerial cases of which the VHW keeps some records.

Besides these diseases which were presented on the social maps, the table below shows the various categories of the diseases and villagers' belief of their causes.

Table 6 Diseases and villagers' belief about their causes.

Disease	Cause	Classification M-modern cause T-traditional cause DK-don't know	No of respondents
1. Diarrhoea	Flies on food Contaminated water Bad wind	M T	107 126
2.Schistomiasis	Snails Water contact Using too much salt	M T DK	65 23 51
3.Malaria/Fever	Mosquitos Ticks Stationary water	M T DK	132 65 33
4.Abdominal pains	Contaminated food Contaminated water Bad wind Witchcraft	M T DK	47 102 26
5.Tuberculosis	Infected by another Smoking Witchcraft Spiritual	M T DK -	68 21 89

6.Measles	Bad wind	M T DK	43 109 51
7.Kwashiokor	Lack of food	M	207
8.Poliomyelitis	Witchcraft Ancestors	T DK	304 103
9.Bilharzia	Water borne Heredity Bad wind	M T DK	38 46 21

As can be seen in table 9 above a relatively high number of people attributed a modern and a traditional cause to the same disease. This in no doubt implied that villagers could seek treatment from both a traditional healer and the modern R.H.C. Most patients whom this study interviewed acknowledged that if such kinds of diseases are not cured by modern medicine, then they would seek treatment from the traditional healer. Almost all the traditional healers this study interviewed expressed a traditional cause to most of the diseases the villagers were suffering from. This belief in dual causation also made the patients to consume both modern medicine and traditional herbs.

4.4 Villagers response to services

In Murehwa Kubatana rural district, the most common illnesses which were reported were coughs, colds, bronchitis, skin diseases, stomach disorders, jaundice, bilharzia, diarrhoea, fever and goiter. Whatever their symptoms, patients showed a strong preference for injections, believing that they were not being treated properly without them. For most illnesses villagers reported that they stayed in their homesteads to get well. Herbal remedies and dietary regimes were widely used. If illness persisted, the next resort was traditional healers because these were easily accessible since they were staying in the villages, rather than to go to a R.H.C that is eight kilometres away. R.H.Cs were the last resort, usually sought only for serious and persistent illness. Frequently, when a R.H.C was unable to treat a patient successfully the patient consulted a traditional healer or in some cases a faith healer.

Villagers willingly used both traditional and modern medicine. It often appeared that only health planners and government health practitioners are perceiving conflict between the different medical systems. Informal interviews with villagers and patient in the

rural district demonstrated that those who sought treatment at primary health care facilities chose the facility because of location and quality of care. Furthermore, those who went to traditional healers did so because traditional healers were part of the local community, whereas most government health workers came from urban areas and had a higher social status. Some R.H.C staff managed to develop good rapport with local villagers, particularly those stationed at Chitate, Chitowa, Jekwa and Waterloo (see table 4). This obviously helps to explain the high attendance rates. Failure to develop a good rapport with local villagers among many primary health care staff is mainly because their training does not include experience in rural areas or techniques for encouraging community involvement.

Although villagers were encouraged by VHWs to seek regular treatment at R.H.Cs, they were often met with indifference when they followed this advice, owing to the social distance between patients and health staff. Villagers were often reluctant to be treated by health workers who were young. Age commands respect in rural Zimbabwe. Administrative and staffing problems also discouraged villagers from seeking treatment at most R.H.Cs. Sometimes treatment was not available because of the shortages of medical supplies or simply because trained staff were frequently away from centres when patients arrive for treatment.

Despite the villagers' willingness to consume modern medicine, especially drugs, injections and treatment for wounds, most of the villagers made no demand for modern preventive medicine. Infant many misunderstood preventive measures. Men objected to vasectomy for fear that it would make them weak. Villagers were also reluctant to give blood samples for the same reason. During visits we made to villagers' homes following an immunisation programme, women reported that they had avoided tetanus innoculation because it would prevent pregnancy. Nutrition workers could not measure children's arm circumference to check for malnutrition because

women feared the procedure would cause chicken pox; a chicken pox epidemic had occurred in the district shortly after measuring began. To show a child's nutritional status, the tape measure was divided into three colours. Red indicated serious malnutrition, yellow, undernourishment and green adequate nourishment. Villagers in some areas of the district (Zhombe, Rota and Ngwerume) felt that if a child's arm measured in the red portion of the tape, it would die and if in the yellow the child would get jaundice. Furthermore, some villagers resisted using Oral Rehydration Therapy (ORT) for diarrhoea since it conflicted with their local practice of withholding fluids.

4.5 The village health worker and the community health volunteer

These are the cadres that provide extension services in the arena of primary health care delivery in the rural areas of Zimbabwe. They are, therefore, pivotal to the supply and reduction of disparities in the consumption of primary health services. The community health volunteers commonly known as "vana utsanana" educate the villagers on basic hygiene and how common diseases can be prevented . The community health volunteers are trained by the Zimbabwe Red Cross Society. They provide first aid services in cases of accidents.

The VHWs' task required them to meet as many families as possible during home visits to determine whether anyone had fever. If so they took a blood slide and gave malaria medication. They examined rashes for possible smallpox and chicken pox, checked persistent coughs for tuberculosis, and watched for any signs of cholera and other illnesses. They referred suspected cases to the R.H.Cs for treatment and followed up on any previously diagnosed cases. In the area of maternal and child health, they inquired about sick children, carry out anthropometric tests for children under five

years, and taught parents about the use of fortified flour for diarrhoea. They encouraged pregnant women to go to the R.H.Cs and advised mothers to have their children immunised. They also identified and motivated eligible couples for family planning and sterilisation, and they provided general health education as a way of encouraging villagers to consume the health centres.

The job of the village health worker is too demanding and very few officials at the central level understand the difficulties which are faced by these cadres. Their coverage areas are too big such that they failed to supply the much needed primary health care services to all the villagers. The study found that physical limitations alone made it nearly impossible for the VHWs to perform the many tasks outlined above. Yet discussions on VHWs during planning sessions and primary health care workshops which are held regularly focussed on how to increase their responsibilities. There seemed to be no concern for evaluating the limited feasibility of the VHWs present assignment.

The roles of the VHWs and community health volunteers illustrated the resistance of bureaucracy to social information that may otherwise be widely recognised. VHWs had been assigned impossible tasks, which they could not manage to do under the few resources at their disposal, yet policy regarding how they supply primary health care services is not being changed. Moreover, tasks to be performed by VHWs are designed within the Ministry of Health headquarters in Harare and these have been unrealistic in the light of the local conditions. More resources should be injected at this level so that primary health care services are supplied fairly among the villages. The VHWs are now delivering services to villages near their homes due to walking constraints, thereby leaving other villagers undersupplied.

4.6 Population and R.H.C planning

This part of the study attempt to relate population data of the district in relation to future needs of primary health services given the existing disparities. The population projections which have been attempted by this study put a lot of weight on the supply side and strive to paint an illuminating picture on the future needs of R.H.Cs in the rural district. The population projection is also important for health planners and policy makers because they concern the determination of future supplies and equipment. The supply of drugs, vaccines, contraceptives, needles, infusion equipment and the like are all dependent on the need for them, which again is determined by the number of people using the health care facilities. The population of the rural district was projected into the year 2002 using Cohort.bas as has been described in section 4.1 of this study.

Table 7 Base year population of Murehwa Kubatana rural district

Murehwa Kubatana 1992 population results			
Age group	**Male**	**Female**	**Total**
< 1	2379	2238	4617
1-4	8995	8914	17909
5-9	13133	12981	26114
10-14	12244	12272	24516
15-19	10145	9229	19374
20-24	5842	6693	12535
25-29	3745	4598	8343
30-34	2797	4283	7080
35-39	2231	3638	5869
40-44	1787	2891	4678
45-49	1565	2201	3766
50-54	1772	2575	4347
55-59	1349	1560	2909
60-64	1599	1641	3240
65-69	986	1009	1995
70-74	1203	1427	2630
75+	1036	1256	2292
NS	134	157	291
Total	72 942	79 563	152 505

Source, CSO, January 1994, Provincial Profile, Mashonaland East

This base year population was projected into the year 2002. The study used population figures for 1992 because those were the population figures that were readily available. Projecting the 1992 population figures to 1995 then to the next years was found to be time consuming and likely to distort the future forecast. The projected population is depicted in the table below:

Table 8 Projected population of Murehwa district for the year 2002

Age Group	MUREHWA KUBATANA	
	Males	Females
0-4	15450	9285
5-9	11517	12636
10-14	11147	11140
15-19	13304	13255
20-24	12842	12900
25-29	11353	10199
30-34	7242	7413
35-39	4671	4992
40-44	3578	4497
45-49	2904	3846
50-54	2359	3090
55-59	1989	3387
60-64	1884	2524
65-69	1350	1190
70-74	1251	1359
75+	1244	2523
Sub Total	104085	104236
Grand Total	208 321	

By the year 2002, there will be need for more primary health care facilities or the upgrading of the existing ones to cater for the needs of an increased population. What type of facilities there should be, how many and where they should be located would be dependent on this projected population. Since planning is futuristic in orientation, there is greater need for the health planners and policy makers to consider seriously such issues as population projections, rather than to engage in crisis planning.

To conclude this chapter, it can be safely said that both the Planning with Equity document and the Health For All Action Plan have failed to adequately address disparities in the supply and consumption of primary health care services within the rural district. The threshold population (the maximum population to be

served by a single rural health facility) of 10 000 people is still far from being realised. Furthermore, the range (the maximum travel distance to a facility) of eight kilometres has not been realised as we have seen that some people are travelling more than this stated distance to a health centre. Therefore, the R.H.Cs have not been sited in a manner that gives an equitable pattern of consumption. More health centres or mobile clinics are the only solution in bringing down these intra spatial disparities in supply and consumption of services.

In our findings we have also observed that the consumption of a health centre was influenced by a number of factors. Quality of services and good rapport by the health staff was one major determinant of consumption. For those primary health care centres that offered good services, where drugs and supplies were always in stock and where the staff were responsive to the needs of the villagers, were utilised more than those which offered poor services. In addition, consumption was also influenced by the medication and villagers' belief in injections. Most villagers believed that injections were good treatment to their illnesses and psychologically they felt comfortable with them. Some patients could not mind travelling longer distances for treatment.

Consumption of a facility was also dependent on age and sex. Women and children utilised primary health care facilities more than men as has been indicated in table 8. This was the case because women visited health centres with children for immunisations, family planning and when women themselves and children were not feeding well, whereas men remained in the villages doing some other work such as in the field. Traditionally, women took the duties of child rearing and whenever the child is ill, it is the responsibility of the mother to take the infant to the health centre.

Primary health care consumption was further affected by the villagers' notions on the causes of the disease. Most villagers believed in dual causation of a disease such that they attended to a traditional healer in their village because of the following reasons. Firstly, the traditional healer was easily accessible and secondly, traditional healers were people whom the villagers were familiar to, and most of them were old people whom they respected as elders. Unlike in R.H.C which were manned by strangers and young people, whom the villagers did not trust. However, the villagers attended both a R.H.C and to a traditional healer without any perceptions and contradictions on the type of medical systems. It was also shown that there was no linkage between the level of education of the patients and the type of treatment sought, in terms of modern versus traditional medicine.

The diseases presented to the various R.H.Cs were not all that severe. Most diseases, including those presented to VHWs were relatively simple to diagnose. It was found during the health centre based and community based informal interviews that a hospital treatment was warranted in about nine percent of the cases. Also a maximum of eleven percent of the sick cases reported in the study had been referred to the district hospitals, and these cases concerned diseases which can be described as serious, both from the health centre staff as well as the villagers's point of view.Therefore, the degree of severity of the disease aids in accounting for the variation in consumption, however, in a small number of cases.This probably explains why district hospitals were consumed by a lesser number of patients than R.H.Cs. Other variables explaining this lesser consumption relates to financial and transport constraints.The population projection in table 8 illustrates that there is still greater need for primary health care services in the rural district, if disparities in supply and consumption are to be contained.

CHAPTER 5

5.0 Patterns of resource distribution and interests served

Clearly the features of the health care system that undermined equity in health in 1980 continue to exist despite great efforts by the government and donor agencies to meet the challenge of providing health needs, largely because supply planning continue to bias the delivery of care facilities. Greater efforts have been made to ensure that primary health care service is responsive to need through the democratic control of such services. Health planners and policy makers attempted to achieve this goal by putting mechanisms for greater control and communication between all levels of health workers within the health sector, together with community decision making in health interventions. In practice the democratic control of primary health care has been enhanced by the formation of district health teams and health executives, creating a mechanism of collective planning by health workers at the same level, as well as exchange of ideas between health cadres and other representatives in local authorities. Social control over health care, however, continue to be limited by a number of factors, including the lack of homogeneity in communities, central government payment of VHWs, a lack of structures for patients to exert an influence on preventive care and the total disregard of community priorities in the actual siting of primary health care facilities.

5.1 Implications of the findings on the various models of consumption and supply.

This part of the study discusses the implications of the research findings for the evaluation of the various theories of supply and consumption. we have seen in chapter three that though social scientists, particularly planners and social geographers have

offered various theories which account for the differential supply and consumption of primary health care services, most of them have focussed on characteristics of the population and the physical environment. One of the models presented in this connection is the folk dichotomy theory relating to villagers' beliefs about the causation of the disease. From our findings it can be shown that this theory has some relevance especially in relation to the consumption of a health facility. In this study, we have observed that the utilisation of a R.H.C was dependent on the peoples' beliefs about the cause of the disease. If the disease had a traditional cause, it was brought to the attention of a traditional healer. However, it was not in all cases where villagers consulted a traditional healer, at other times, the patients sought self medication and even faith healing. In such instances were the diseases were believed to be caused by a modern causes, villagers sought treatment from the R.H.Cs. Nevertheless, there had been some cases reported where patients sought treatment from both the traditional and modern health practitioner. The folk dichotomy theory is also significant in predicting the consumption of traditional versus modern medical facilities, but it cannot be generalised, since certain diseases, which were generally believed to be caused by supernatural agents, were thought to be best prevented and treated at the R.H.Cs. Furthermore, the relevance of the theory for the supply planning of modern primary health care services is of less importance.

Considering our findings of both the R.H.C based informal interviews and the PALM exercise with the villagers, one can question the validity of the acculturation theory which maintain that the consumption of modern primary health care services is correlated with a relatively high socio-economic level coupled with an increased level of education and industrialisation. In this connection the underlying assumption of the theory that variations in the consumption of primary health care facilities between patients of different levels of education and different religions

affiliation are not so much a function of the motivation of the individual patient, but rather was a function of the differential distribution, rapport displayed by the health staff and the constant availability of medicines and drugs. It must be noted that one cannot draw adequate conclusions from studies which do not take into cognisance the location of the R.H.Cs. For instance, Reid (1969 p.189) in studying the health practices of the Sukuma in Tanzania, found that rural women, characterised as traditional, belonging to a farming background and having no education were seeking no pre-natal examinations or health centre delivery, whereas modern oriented women, particularly in urban areas, were reported to have these examinations and to choose a hospital or clinic delivery. However, it is self effacing that an intervening variable, notably the location of the facility at a short distance from the patients' home, is more likely to explain the difference.

This brings us to the conclusion that little systematic attention has been paid to the characteristics of the health services, in particular, to the nature of the delivery system, as independent variables for explaining the differential consumption of these services. This study, has attempted to depict that accessibility to a R.H.C is one major significant determinant of consumption of health services. The variations in consumption so portrayed, can thus be interpreted as a function of the supply of the primary health care resources and the structure of health services generally, rather than a function of the characteristics of the population, such as for instance the socio-economic level.

The two consumption theories, that is the folk dichotomy and the acculturation theories, have one thing in common. They consider traditional aspects of the population, whether in terms of health beliefs or in terms of socio-cultural background, as the main barriers to the consumption of modern primary care services and consequently advocate for the modernisation of the villagers as the most effective remedy to this problem. Increased consumption

patterns of R.H.Cs is expected to occur when changes in villagers beliefs and their standards of living had taken place.

In contrast behavioural models of consumption seem to have significant consequences for the administration and planning of primary health services and for this reason, their implications need to be evaluated in the light of the findings of this study. Of course consumption of a primary health care facility was a function of several attributes which ranged from institutional barriers, enabling factors, accessibility factors, predisposing factors, perceived health levels and social group pressures. Behavioural models of consumption hold some water with respect to our findings on enabling factors, predisposing factors and perceived health levels. Enabling attributes such as income helped some villagers to be able to travel outside their villages or wards to district hospitals by public transport such as buses. Most serious patients who were referred to the district hospitals by a R.H.C failed to visit these due to the problem of lack of cash. However, predisposing factors such as prior knowledge about a centre's service capacity and rapport of the health personnel were found to be true by this study. In our findings, we have documented that primary health care facilities that were manned by personnel who carved good relationships with the villagers and conducted treatments in a personal manner were the most frequently attended. Furthermore, consumption of the R.H.Cs was not primarily conditioned by distance. Patients could travel longer distances to a facility that had greater service capabilities. Perceived health levels was another major attribute in the bahavioural model of use that was documented in our research findings. Patients tended to attend primary care facilities when their illnesses were severe. It was at this point in time that other villagers advised such persons to visit the health centre. The VHW also played a crucial role in encouraging the sick persons to utilise the R.H.Cs.

The implications of the behavioural model of consumption for the

better planning and management of primary health services in the rural districts of Zimbabwe are obvious. What the model advocates is the development of a management and planning system that is relatively inexpensive and responsive to the needs of the grassroots people. Rational and scientific management techniques are too elaborate and unresponsive to the psychological, socio-cultural and demographic aspects of the rural people owing to their impersonal character. This is further worsened by the fact that the measurement of the health personnel performance stresses the adherence of certain bureaucratic standards and procedures rather than focussing on clientele satisfaction. This is the reason why most of the health personnel in the primary health care delivery system failed to create good rapport with the local villagers.

The conclusions which can be drawn from the foregoing evaluation of consumption theories are that the folk dichotomy model is egocentric and cannot provide a good ground for the formulation of practical ideas aimed at improving the consumption of primary health care facilities. It would be unworthwhile to first wait for a rise in the standard of living and education of the rural people so as to witness the increased consumption pattern of R.H.Cs. Moreover, traditional and modern health beliefs and values must not be viewed as mutually exclusive, but as different sides of the same coin. From the behavioural model, what can be meaningfully concluded is that there is a misconstruction in the manner in which the primary health system component services is projected in terms of accessibility, availability and organisation, which in a way has influenced the way the potential consumer perceived the validity of doing so. A democratised primary health care delivery system goes a long way in making the communities work together with the health personnel in an atmosphere of mutual trust and respect. This means that the organisation and management system of primary health care delivery must be flexible, responsive and development oriented allowing the communities to discuss their health needs at a much more personalised level.

In the light of our findings, it is very difficult to evaluate supply theories in relation to the actual planning practice of R.H.Cs, since these are social services that had been provided taking into account priority of social considerations. However, there are certain variables of the supply theories which can be evaluated by this study in the light of our findings. According to the Planning For Equity in Health, a policy document which guides the supply planning of R.H.Cs in Zimbabwe, stipulated that each planned centre should have a threshold population of 10 000 and a range of eight kilometres. This implies that if all R.H.Cs in the two rural districts serve a population of 10 000 and this population residing within a radius of eight kilometres to each facility, then there would be an equitable supply of primary care facilities. Nonetheless, as been revealed in our findings, this situation is far from being reached as many of the patients come from without the stated range.

However, the central place theory further acknowledged that the range of a particular centre can be increased due to an increase in service capacities. This appeared to be the case with those R.H.Cs that had efficient service capabilities, where patients came from a range of more than ten kilometres. This increase in range of a particular R.H.C cannot only be explained by an increase in trading activities or service capacities, but as been realised earlier, be brought about by the excellent rapport and relationship displayed by the health staff at the centres. This, then brings us to another aspect of supply theory, the distance decay function as a phenomenon relating to rate of consumption. It is based on the assumption that demand has an element of elasticity, which means that the consumption of a facility decreases with the distance the patients had to travel. The benefit or utility the patient receives from the service depend on intervening distance. The distance between the marginal beneficiaries and the primary health facility will increase as the benefits (utilities) they receive decline because of increased costs of gaining access. This was the

case for those facilities that lacked good and efficient service capacities. On the other hand the distance decay function did not hold water for those R.H.Cs that had greater service capacities and which were manned by health staff who personalised their business. It must be noted that precise derivation of the distance decay functions of the primary health care service facilities were different because of the nature of the research methodology adopted by this study and unavailability of records at the centres.

The conclusion that can be drawn from this evaluation is that R.H.Cs in the two rural districts are not supplied in a way that gives an equitable pattern of access opportunity. Almost entirely all the R.H.Cs supplied serve more than the stated threshold population and range. There are obvious implications concerning threshold requirements of primary health care facilities, size of service areas and quality of service delivered. The pattern of primary health service provision is one with marked spatial variations in incidence.

5.2 Health resource distribution

It would appear self evident that the situation outlined in our findings for the rural district can be discussed in relation to the total problems of service provision throughout the country. By discussing the findings int their totality, it will then be possible to demonstrate in whose interest the present patterns work, and makes it easier to map out strategies that might be required to influence effectively the forces producing such adverse conditions.

There are two patterns of health resource distribution which are almost becoming clearly visible in Zimbabwe. Firstly, health services are becoming increasingly urban based, capital and skill intensive, based on high technology interventions and focussing largely on the curative aspects of health care. The obvious

corollary is that rural, preventive and caring services are becoming increasingly starved of resources. Secondly, those most in need of health care resources have little access to health facilities. Areas with high levels of marginalised population, or of the lower income groups, who suffer the bulk of health care problems, are provided with the most deficient services. This "inverse care law" which was first described by Dulian Tudor Hart (1971) for general practitioner services has now been demonstrated to exist in health services of all types.

These patterns are produced by a number of forces at work in the health delivery system of Zimbabwe. Four major forces relating to the conflict between medical practitioners (Hospital Doctors Association (HDA), Zimbabwe Medical Association (ZMA) and health planners and administrators, to commercial interests, to the media, and to membership of health authorities, are noticeable.

Firstly, within the health service itself the major dynamic at present remains the struggle between the medical profession (HDA and ZMA) and the planning and administrative group. On some health issues the interests of these two groups are quite different. The interests of the administrative and planning group lies in obtaining firm control over the planning and decision making machinery of health service provision and the ability to determine the supply and expenditure on all items of health service budget. It is evident that the doctors are resisting any attempts at eroding their traditional areas of decision making influence. They can be seen to fight vociferously for the maintenance of their right to remain the sole arbiters of all the resources at their disposal, even when the present treatment of various conditions can be shown to be ineffective, or simply more costly than other alternatives such as primary preventive service. Similarly, they are resisting all efforts to introduce measures that would lead to a fairer distribution and access to health facilities and doctors throughout the country and discuss as interference with their

professional autonomy for a more fairer supply and consumption of services.

Where the interests of the two groups of professional diverge, enormous distortions can occur in the pattern of service delivery. This has certainly been the case with much of the present system striving for a rationalisation of health care supply and consumption. The doctors on the other hand, advocate for the centralisation of health services in the rural regions, rather than the decentralised and democratised primary health care. It is the interests of the doctors to provide centralised facilities while the planning and administrative group is in favour of decentralised preventive services. It is in the interest of the medical profession to avoid the introduction of more democratic features into the health decision making structure, where almost every decision pertaining to supply and consumption of health service in the provinces and rural districts rests with the Provincial Medical and District Medical Officers, who are essentially hospital doctors. This has produced a service in which the ordinary rural people and workers have only a minimal, muted and automatically outweighted possibility of any democratic voice in the service.

Secondly,acting directly on the patterns of service provision are the commercial manufacturers and suppliers of medicines, high technology equipment and expensive buildings. Obviously, it is in the interests of these groups to create a service which focusses on the curative, high technology end of the spectrum, thus creating a market for their products. The links between the commercial group and the hospital doctors should not be underestimated.

Thirdly, the Zimbabwean media (both print and electronic) habitually exploit and emphasize the technological and curative aspects of the health care delivery system. The concentration on dramatic, interventionist, rare charismatic or transplantable aspects of health services can be routinely observed. This moulds

general attitudes to primary care service that ensures changes to the present health patterns are hard to obtain and will remain unsupported by media coverage.

Finally, the democratic entry into the health bureaucracy is firmly controlled by members of the upper and middle income groups in whose interests the present patterns of service tend to work. It might be exciting to illuminate on how some interest groups derive benefits from this pattern of health resource distribution prevailing in Zimbabwe.

5.2.1 The medical profession

This profession is represented by the following interest groups, the Hospital Doctors Association (HDA), Zimbabwe Medical Association (ZMA), State Certified Nurses Association (SCNA), and the State Registered Nurses Association (SRNA). This profession enjoys practising technological and interventionist medicine, particularly those represented by the first two groups. They also enjoy the most technological specialities and have the greatest earning potentials. With imperfect controls over their activities they are able to practise almost wherever they wish, and practise and prescribe even those interventions that have been shown to be ineffective, dangerous or simply expensive.

They enjoy very high earnings and are often able to supplement their earnings from private practice or by secretly awarded "merit awards". They are well represented in the health decision making system,with all district and provincial health teams headed by a medical practitioner. In actual fact, they are well represented in all health authorities, especially in the Zimbabwe health supreme council, the Medical Professions Council (MPC). They are able to reproduce the present system through their control of the entry into, and syllabus of graduate and post-graduate medical education.

The medical professionals have considerable political and industrial muscle and are becoming less reticent about threatening to use their decision making autonomy. They use the actual or potential withdrawal of their labour to protect their own interests and to maintain the present pattern of health service provision. Sanctions against the profession are extremely weak mainly because the complaints procedure against doctors is firmly controlled by the Health Professions Council at all levels.

State Certifies Nursed (SCNs) are the only segment of the medical profession which have been strongly associated with the delivery of primary health services in the rural areas of Zimbabwe. Special attention must be given to the place of these cadres, who although less trained than State Registered Nurses (SRNs) carry out the bulk of the preventive and curative work in the rural areas, but earn a ceiling salary equivalent to that of a newly qualified SRN, have a third of the leave allowance, and generally poor working conditions. A strong hierarchial professional organisation and different interest groups within the health sector have weakened dialogue between the different professionals and decreased their ability to fight for better working conditions and to influence ministry of health policy in a coherent manner.

5.2.2 The upper social classes

The middle and high income groups in Zimbabwe tend to suffer less or to die later from all causes of diseases (Min. of Health, Epidemiology Department, 1994). This group has easier access to health facilities of all types and they receive better treatment at these facilities than members of the rural group that is socially distant from the suppliers of the service. They are less likely to be concerned about various charges made for services under the present system, such as prescription charges and medical aid membership fees of such prestigious organisations such as the Medical Air Rescue Services (MARS). They are able to opt out of

public health services any time into the private system if they feel that public health standards fall below their view of a satisfactory standard. Their ability to go private applies to the provision of all types of services, preventive and curative, as well as such services as abortion and long term care. Group health insurance is becoming increasingly a common feature of middle and upper management remuneration schemes.

5.2.3 Commercial interests

Many commercial companies in the manufacture of medical equipment and drugs are dependent on the present patterns of health service supply since their finished products would be guaranteed a market. They also emphasize the curative aspects of medical care as opposed to primary preventive services. their marketing strategies bear testimony to this. A rather flippant example from one leading manufacturer of medical supplies in Zimbabwe helps to demonstrate this significant point.

> Bradilan (tetracotinoyl fructose) is a promotional material for good health.
> Among other things that we cannot promise to make your patient jump, but your clandicants will be able to walk further.

This is one good illustration of flamboyant commercial medical advertising prevalent in Zimbabwe today.

5.2.4 The state

The technological emphasis of medical services has the effect of focussing primarily on curative aspects of care and on the economically active sectors of society. The elderly, mentally handicapped, those residing in the rural areas and the like have been completely neglected. Advances in medical high-tech equipment has not matched the development of appropriate primary preventive health technology.

Curative involvement legitimises the interventionist activities of the state. It is seen to be involved, benignly, in the welfare of the community. This high profile is more profitable than more effective, medically speaking preventive efforts. The present state-operated health services stimulate the economy by providing a good market for the commercial medical sector. Preventive activity, particularly in the prevention of industrial and natural diseases might be expensive and is seen as unprofitable and inhibiting economic activity. The concentration of efforts on diseases and individual illnesses distracts attention from the wider social, economic and political causes of ill health.

Although it is important to consider the problems of health service supply in the rural areas of Zimbabwe, this should not be allowed to obscure the more important problems regarding the factors that are creating illnesses in the first instance. Such factors operate in rural as well as urban areas. There is no real doubt that there is a core of inevitable disease that would afflict a certain number of people, whatever type of society is in existence. This is responsive to the usual techniques of detection, diagnosis and health centre management, and there can be no serious doubt that some of this task does require the very obvious benefits of appropriate, preventive technological intervention. However, the exact size of this core of inevitable illness is hard to determine exactly, and it is probably not as large as the medical profession providing the service would have us believe. The excess mortality and morbidity suffered over and above this can be considered to be socially produced ill-health.

Almost the whole range of diseases documented by this study, presently afflict members of various social classes differentially. In almost every disease category for which statistics exist it can be seen that there is a gradient such that members of the lower social class suffer more from that disease, and die at a greater

rate from it than members of the upper social classes. There is no evidence that this is generally determined, so it is safe to conclude that this excess mortality is caused by the particular adverse conditions of the social and physical environment available to people in manual and semi-skilled families. In addition, there are major diseases that are actually being created by our society. There are forces at work creating the types of behaviour that are known to produce disease. Many of the so called "modern epidemics" fall into this category. For instance, in the 35-70 age group the major killers, cardiovascular diseases and cancer are attributable to the behaviour vigorously promoted by the commercial interests of manufacturers such as the tobacco, alcoholic beverage and food processing and marketing companies. The entire process of production which creates occupational hazards and environmental pollution is itself socially created and also ensures a large growing health problem.

6.1 Implications for primary health care development policy

This definite and more informed picture of the rural spatial variations in supply and consumption of primary health care facilities/services provides in itself a good ground for the enactment of a comprehensive health policy aimed at reducing these disparities. There is evidence that there are major social and economic circumstances which correlate with the incidence of primary health care consumption, and that to some extent these circumstances can be made at least to be reduced to low levels through policies that are jointly promulgated by the government and the beneficiaries. The disadvantaging family circumstances include above all, low incomes and associated with it, poor transport facilities, social stress and low educational aspirations. The additional hazard which compounds the problem is remoteness and natural barriers.

The ministry of Health and the NGOs have attempted to solve the problem of access and health facility deprivation by providing mobile health services in the rural district. These mobile clinics allowed remote rural patients to seek modern primary health care within the confines of a specially equipped vehicle. In terms of coverage, remarkable achievements have been made through these mobile clinics. However, this coverage has been poor during the rainy season, when the services of a mobile clinic are needed most in the rural areas, the time at which water borne, water related and water based diseases are prevalent. During the rainy season the roads will be muddy and rivers will be flooded. This means that any health policy aiming at increasing supply and consumption must incorporate a roads and bridges rehabilitation exercise. The presence of poor roads and bridges in the rural district pose as a threat and are dangerous for patients to cross as well as the mobile health clinics to access remote villages. The significant aspect at formulating a clear cut primary health care policy at this stage is for the health planners and policy makers to admit that the problems of access and consumption exist markedly. What is, therefore, required is an accurate description of the main features of the problem before alternative health policies are proposed.

This study has demonstrated a variety of problems concerned with supply and consumption of primary health care services and one of the most significant conclusion that can be drawn from the study for a general primary health care development policy is, that the promotion of rural health is a very complex issue, involving a wide range of sometimes radical decisions in the political, economic, administrative and planning fields. In this respect, Zimbabwe has not only set a very interesting example for other newly independent Southern African states, in particular South Africa and Namibia to learn from while planning and implementing the development of their rural health sector, but at the same time it has been made clear from the Zimbabwe experience that answers to the problems of supply

and consumption of primary health service facilities are not one dimensional.

Within this context, a major consideration is that the relative inequality in access and utilisation of R.H.Cs can primarily be seen as a function of the overall social and economic policy of the colonial administration. As has been noted earlier, one of the most significant characteristics of this policy was its focus on the urban scene, where most of the Europeans were living, leaving the African population in the rural areas in a very marginal position of socio-economic development.

The significance of this policy interpretation, derived from an historical analysis of the primary health care development in Zimbabwe is that it draws the attention to the broader social context of the primary health system in the colonial and post-colonial society, and more specifically to the peripheral position of the rural regions in the country's development. Viewed from this background, it is imperative for Zimbabwe to embark on a large scale co-ordinated primary health care programme by first eliminating the various structural constraints which have in the past impeded the development of the primary health care sector. This would entail the furthering of the process of decolonisation of our society in general, and the health sector in particular. Overally, the rural health development objective of ensuring that there is a fair supply and consumption of facilities seem to require a political solution, not a planning solution, which will lead to further changes in the administrative, economic and health education fields. Looking forward to the health for all by the year 2000 and to the practical steps that might be taken to alleviate accessibility, deprivation and consumption of primary health services, it is clear that there is no panacea waiting to be discovered. Rather, the need is to tailor area specific policy packages which best attain the locally determined optimal combination of good accessibility and fair consumption, wide spread

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applicability and low cost. The policies and plans going to be adopted must be implemented to meet as efficiently as possible, the chosen compromise combination.

To conclude this part, it can be noted that accepted legal, organizational and socio-cultural constraints must be forced to give way if real improvements in accessibility to rural health centres are to be achieved in a reasonable public expenditure climate. Even this, however, will prove to be insufficient if real political will among the politicians is lacking. Whether the necessary reforms and initiatives contained in this study will actually be undertaken depends in large part upon the attitudes and priorities of central and local government politicians, and upon their willingness and ability to harness and to redirect the efforts of the public and private humanitarian sectors. Therefore, the process of politicisation of the health institutions has not been strengthened enough to make rural health development more effective, accessible and consumed. What is needed, therefore, is a further discussion between the political leadership and the ministry of health, public construction, local government and finance about how best to fit the primary health policy into the overall health development policy.

6.1.2 Recommendations

There is a need to develop mechanism aimed at increasing the democratic control of primary health services in the rural districts. In particular, efforts should focus at improving the accountability of health workers to the communities they serve and to further improve relations between health workers at the various grassroots levels, and between health structures and those of other sector ministries and NGOs. This could mean developing and giving more power to grassroots village cadres, that is the Village Health Workers, Community Development Workers and Community Based

Distributors. These grassroots cadres should be well represented at planning meetings of various levels since they are the ones who work with the villagers on a daily basis.

The performance of the health officials who work at the grassroots primary health care centres should not focus on strict adherence to bureaucratic procedures, but rather promotion and career rewards should be measured by the level of clientele satisfaction and relations moulded between the health staff and the communities. Such a focus would encourage health personnel to create good relations and rapport among the villagers, and in turn would encourage them to consume modern primary health services. This would also make the villagers receive health services of better quality.

The entire sphere of primary health care facility planning should be left to professional planners, rather than doctors (PMD and DMO) making some planning decisions pertaining to the supply of RHCs. This is the reason why the planning procedure of primary health care has been haphazard and disjointed in manner. This entails that the provincial planners at the provincial levels should be on the forefront of any planning decisions pertaining to primary care facilities, rather than being overshadowed by the PMD. The provincial planners should be able to forge links, horizontal and vertical, informal and formal with the local communities in the planning process. Through the democratic control of the planning process, the provincial planners will ensure that their health facility plans are responsive to the needs of the local people.

Greater control by and communication between planners and all levels of health workers within the health sector, together with community decision making in primary health care interventions is strongly recommended. In practice the democratic control of primary health services can be greatly enhanced by the formation of ward and village primary care teams, creating a mechanism for

collective planning by grassroots primary care cadres, as well as the exchange of ideas between these grassroots cadres and the local villagers, and other NGOs who work with grassroots people, including other representative of the rural district councils. Social control as a way of increasing accessibility and consumption will, however, continue to be limited by a number of factors such as lack of homogeneity in communities, central government payment of VHWs, FHWs and CBDs and a lack of structures for patients to exert influence as curative care. The democratisation of primary health care, however, also implies a changing ideology of health care in Zimbabwe, demystifying the causes of ill health. This in turn will mean that the roles of the grassroots health workers will change in this process of transformation. Though a remarkable equitable pattern of primary care facilities is desired because it increases accessibility and consumption, however, the relative sufficient number of services will not imply that their quality will also be adequate. The supply planning of new facilities should be coupled with an adequate supply of qualified health personnel, good staff houses and sufficient funds for equipment and maintenance.

7.1 Further avenues for inquiry

An important area which merit further investigation are the barriers inhibiting a fair supply and consumption of primary health which are beyond the scope of planning. One will be looking at whether the problem of unfair supply of R.H.Cs can be solved by the application of technical solutions or political solutions. If the political sphere has so much muscle to make an overall and meaningful change to rural health development, why is it that it is taking so much time to flex its muscle. This probably would also entail an investigation into the social dynamics of health service provision where the various social groups and interactions would be analysed. It would be also easier to identify the promotive and inhibitive factors towards rural health development by focusing on

the inter or intra-group dynamics in the struggle for health.

Another significant avenue for inquiry would be to investigate the potential use of socio-cultural information towards the improvement of primary health care planning. Socio-cultural information is very useful in terms of primary health service planning, as have been demonstrated in our findings that a number of villagers believed in traditional causes to a disease and others believed in traditional healing. An indepth inquiry of socio-cultural information would aid greatly towards the designing and planning of the primary health care programme. It would be therefore, a good service for the local communities if RHCs are designed in such a way that they incorporate a herbal clinic or dispensary for those patients who believe in traditional healing. Furthermore, male grassroots primary health cadres have not been able to work effectively because traditional expectations about women conflict with their health roles. It proved very difficult for them to educate women on maternal and child health issues, on the grounds that it was socially unacceptable for men to discuss such issues with other people's wives. An investigation into-cultural aspects of health might also assist to improve the roles of the VHWs.

7.2 Summary and conclusions

The study will conclude by recognising that the primary health care sector in Zimbabwe has made significant changes in expanding and distributing health facilities to those in need, but the sector continues to face the challenge of multiple providers of care, a rural - urban dichotomy and social class differentials in health status and access. The implementation of the primary health care policy since 1980 has led to the expansion of a national VHW programme, widespread expansion of primary, preventive and maternal and child health care services (including the expanded immunisation and diarrhoeal disease-control programmes, a national nutrition programme and a child spacing and family planning programme),

significant improvement in village level water supplies and sanitation. The rural health facility building programme progressed very well, with a number of RHCs being constructed and upgraded.

However, the class and spatial bias still persist, and many struggles need to be waged against these. Urban based hospitals are well staffed in terms of qualified nurses and doctors while R.H.C are not. Before presenting the organisation of health services in Zimbabwe, a short description was given in chapter one, of the evolution of the primary health care approach, followed by an attempt to demonstrate how health services are organised in Zimbabwe. An assessment of the organisational changes in health which were effected after independence was made, putting the reader in a clear picture of the place of the RHC within the overall system of health facilities in the country. The significance of primary health care in the rural development discourse was also emphasised. The purpose, objectives, hypotheses guiding the study and the health problems facing the country were outlined. The post independent health delivery system was discussed where we saw an expansion of government expenditure towards primary health care. The share of preventive services in the ministry of health budget rose from 7,9% in 1979/80 to 14% in the 1985/86 fiscal year while that of medical care fell from 87,1% to 77,9%.

The conclusion drawn from this chapter was that the new government was committed to revamp the health care of the hitherto neglected rural communities as been evidenced by the expansion of expenditure and efforts towards ameliorating the rural health sector. There were constraints which the government faced and these related to finance and manpower issues.

Chapter two presented a number of theoretical explanations that could aid our understanding of the supply and consumption of social services such as primary health care. Endeavours to illustrate

the structures that are involved with the provision of primary health care in Zimbabwe were made. These structures are crucial to understanding the development and planning process of primary health services.

The conclusion from this chapter was that the two categories of theoretical explanations proved very useful in trying to expalin the supply and consumption of primary health facilities in Zimbabwe. The two categories of theories cannot be viewed as mutually exclusive, but can be used together in order to enhance our comprehension of the location behaviour of personnel supplying social services as well as the utilisation behaviour of their consumers.

Chapter three presented the materials and methods used to gather the necessary information which was required by this study. The conclusion drawn from this chapter was that PALM proved to be the most appropriate methodology, which was accepted by the local people without any reservations. It enabled the researcher to work with the local community in an atmosphere of friendliness and equality.

Chapter four focussed on the presentation of the research findings. Firstly the number of rural health centres in the rural district were outlined, including the bed establishment, whether owned by government or rural district council and whether built before or after independence. This demonstrated that the post independent state did a tremendous work to construct new primary care facilities within the rural district. Of particular importance, was the finding that the decision to have a RHC in a particular district, rested with the PMD and DMO who are all medical doctors, and these cadres do not have planning and administrative knowledge when it comes to making tangible planning solutions pertaining to health facility provision. Furthermore, consumption of facilities was dependent on a number of variables such as distance, beliefs

about the cause of a disease, physical and natural barriers and the calibre of the health staff. It was also found that the RHCs are not distributed in space in a manner that is in line with the stated policy of a threshold population of 10 000 people and a range of about eight kilometres for each facility. It was also shown that the VHW is overloaded with a lot of tasks and this cadre is not even involved in the making of technical planning and decisions relating to preventive medicine, yet they are the ones who are very close to the people.

Chapter five discussed the implications of the findings on the various models of consumption and supply. It also offered some policy recommendations aimed at improving the development of primary health care services in Zimbabwe. An analysis of the patterns of health resource distribution was made, and the pattern obtaining in Zimbabwe is in favour of the urban based high technology hospitals and the upper social classes who have easier access to health care to the detriment of the rural people.

The conclusion drawn from this chapter is that all the efforts made by the Zimbabwean government to restructure the country's health delivery system involving political, economic and administrative actions, should be warning to the newly independent Southern African states that a balanced development of the health services cannot be achieved by merely increasing expenditure on the sector. The development of the primary health sector is an elaborate process which requires a development and purpose oriented bureaucracy.

APPENDIX 1 PALM Programme schedule

Schedule One - Introductory Introduction with villagers Listing health priorities Identifying roles and responsibilities Sharing in village tasks (equalisers) Playing group games (empathisers)
Schedule Two - Key Informants Identifying key informants Meeting with the key informants Participatory mapping - village layout - health infrastructure Convergence
Schedule Three - Informal interviews Grouping of key informants Informal interviews Recording group interviews Visiting R.H.Cs Informal interview with patients and health staff Convergence

APPENDIX 2: Identifying key informants for the rural health research at the ward levels

Brainstorming on various stakeholders

APPENDIX 3 **Identifying key informants in the supply and consumption of primary health care**

Verifying with the local community/authorities concerned as well as enquiring about the stakeholders' role

3.1 Verifying by Telephone

- Local Government Promotion Officer
  (Min. of Local Government, Rural and Urban Development)
  Tel.

- Villagers Health Workers
  (Min.of Health - District Health Assistants)
  Tel.

- Traditional Healers
  (ZINATHA - Tel)

- Health Inspectors
  (Min. of Health -District Medical Officer)
  Tel.

- Community Development Workers
  (Min. of Labour and Social Welfare - District Social Welfare Officer)
  Tel.

- Environmental Health Technician
  (Min. of Health - District Environmental Officer)
  Tel.

- State Certified Nurses
  (Min. of Health - District Nursing Officer)
  Tel.

- Community Based Distributors
  (Family Health Project - Project Coordinator)
  Tel.

- Red Cross Volunteers
  (Zimbabwe Red Cross Society - District Programme Administrator)
  Tel.

- Resettlement Officers
  (District Development Fund - Provincial Rural Development Officer)
  Tel.

- Councillors
  (Rural District Council - Council Chairman/District Administrator) Tel.

- Local Party Chairman
  (ZANU (PF) District/Provincial Committee)
  Tel.

- Village Pump Minder
  (District Water Committee - Committee Chairperson)

APPENDIX 3.1 Identifying key informants in the supply and consumption of primary health care

Verifying with the local communities about the roles of the stakeholders given by the authorities: A random inquiry

From the community

- faith healers - what are their roles?
- Resettlement officers?
- Social workers?
- Chiefs and Headmen?
- Village Pump Minders?
- Nurses?
- Nurse Mid -Wives?
- Red Cross Health Volunteers?
- VIDCO?
- WARDCO?
- Village health Workers?
- Farm Health Workers?
- Community Based Distributors?
- Environmental Health Technicians?
- Health Inspectors?
- Community Development Workers?
- Traditional Healers?
- Local Party Chairperson?
- Field Orderlies

APPENDIX 4 Identifying key informants in the supply and consumption of primary health care

1. Environmental Health Technicians - environmental health, hygiene, water supplies and sanitation

2. Chiefs and Headmen - land allocation and adjudication

3. Resettlement Officers - management of resettlement areas, land use rationalisation and agricultural productivity

4. VIDCO - development issues pertaining to the village (water, health, environmental resources, decision making and village development plans)

5. WARDCO - development of the wards (decision making, development plans, articulating local needs etc)

6. Traditional Healers - traditional medication

7. The community - mobilising resources for development (finance, labour, materials, maintenance of infrastructure)

8. Village Health Workers - enumeration and upgrading of household health information, determines if anyone in the household has malaria, Hansen's disease, small pox, diarrhea and other diseases, nutrition, family planning, child health, promotion of oral rehydration therapy

9. Farm Health Workers - same as above

10. Community Based Distributor - motivate couples to use family planning, distribution of condoms, to report cases of sexually transmitted diseases, aids counselling

11. Community Dev. Worker - to remain conscious on village problems

12. Health Inspector - disease control and inspection

13.	Nurse Midwife	-	delivery of uncomplicated births, pre and post-natal care, family planning advice and contraception
14.	Red Cross Health Volunteers	-	first aid treatment, refer other patients to the RHC
15.	Nurses	-	outpatient treatment, control and cure of diseases, immunisations, basic dentistry, mental health and rehabilitation
16.	Faith Healers	-	faith healing and prophesising
17.	Social Workers	-	social development
18.	Village Pump Minders	-	maintenance of village water supplies

APPENDIX 5: Identifying key informants in the supply and consumptionof primary health care.

Stakeholder Analysis

ROLES	Environmental Health Technician	Chiefs and Headman	Resettlement Officers	VIDCO	WADCO	Traditional Healers	The Community	Village Health Workers	Farm Health Workers	Community Based Distributor	Health Inspector	Nurse Midwife	Red Cross Health Volunteer	Nurses	Social Worker	Pump Minders	District Medical Officer	Provincial Medical Officer	District Nursing Officer	Community Dev. Worker	Faith Healers	District Council	Planners	Min. of Pub. Construction
Environmental Health, hygiene and sanitation	X							X	X		X													
Land allocation and adjudication		X																				X		
Village development				X																		X	X	
Ward Development					X																			
Traditional medication						X																		
Mobilising resources							X													X			X	
Family planning								X	X	X		X		X										
Health education	X							X	X		X													
Household health education								X	X						X									
Child nutrition								X	X					X	X									
Oral rehydration therapy								X	X															
Aids counselling										X				X	X									
Distribution of condoms										X				X										
Reporting STDs										X														
Disease control and inspection	X							X	X		X													
Deliveries												X												
Pre and post-natal care												X												
First aid													X											
Outpatient treatment														X										
Immunisations												X		X										
Mental health rehabilitation														X	X					X				
Basic dentistry														X										
Social development							X								X					X				
Maintenance of village water supplies				X	X											X								
Faith healing																					X			
Siting of RHCs																							X	
Land allocation																						X		
Local development plans				X	X													X	X				X	
Construction of RHCs							X																	X
Maintenance of RHCs																								X
Community based care								X	X															
Vaccinations														X										
Encourage use of RHC								X	X				X		X									
District health decisions																	X		X					
Provincial health decisions																		X						
Primary health planning				X	X												X	X	X			X	X	

APPENDIX 6 List of wards visited

MUREHWA KUBATANA RURAL DISTRICT

Name of Ward	Ward Number
Cheunje	2
Nehanda	4
Chitowa North	6
Zhombwe	8
Murehwa Centre	13
Chivake	14
Mukarakate	17
Kadzere	20
Musami	22
Rukudzi	24
Rota	26
Twenty Eight	28
Macheke	30

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