

**CAREER ASPIRATIONS OF ZAMBIAN MEDICAL GRADUATES  
TRAINING FOR DISTRICT HEALTH SYSTEMS**

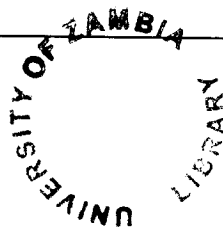
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**A DISSERTATION SUBMITTED TO THE UNIVERSITY OF ZAMBIA  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF PUBLIC HEALTH (MPH)  
IN COMMUNITY MEDICINE**

**SCHOOL OF MEDICINE  
THE UNIVERSITY OF ZAMBIA  
LUSAKA, 1996**



( iii )

### COPYRIGHT DECLARATION

I declare that the work presented in this study, as a dissertation submitted to the University of Zambia in partial fulfilment of the requirement for the degree of Master of Public Health, in Community Medicine, has not been presented neither wholly or in part for any other Master on Public health and is not being presented for any other Degree.

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SIGNATURE: 

DATE: 12/3/98

I have read this dissertation and recommend it for examination

SUPERVISING LECTURER(S)

SIGNATURE: 

DATE: .....

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DATE: 12/3/98

( iv )

## DEDICATION

This study is dedicated to my wife, Christine,  
for her encouragement, help, support  
and her willingness  
for us to be apart for long periods of time  
in pursuit of these studies.

APPROVAL PAGE

This dissertation of Operance Muyabala Munachitombwe is approved in partial fulfilment of the requirements for the award of the Master of Public Health degree in Community Medicine by the University of Zambia.

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## ABSTRACT

There is increasing interest in assessing the medical manpower needs of Zambia. If doctors, who graduate in Zambia are to remain in the country they will need to have their career aspirations met.

**Objective:** To assess the career aspirations of Zambian Medical Graduates and the training needs for District Health Systems.

**Design:** A descriptive cross sectional study using a structured self administered closed and open ended questionnaire and focus group discussion were undertaken from November 1996 to February 1997.

**Setting:** The UNZA Medical School, Two Tertiary Internship Training hospitals, 61 District hospitals and Chainama College of Health Sciences were the setting for this study.

**Subjects:** A total of 85 respondents; 36 final year Medical Students (group 1), 27 Junior and Senior Resident Medical Officers at Ndola and Kitwe Central hospitals (group 2), and 22 District Medical Officers (group 3) responded to the questionnaire. In addition a Focus Group discussion of 11 people composed of four lecturers and seven final year students at Chainama College was conducted.

**Main Outcome/Measures:** The study sought to find out the Career choices and factors influencing them. Zambia's health needs, Training for District Hospitals, Preference of where to work. Finally respondents were requested to give their opinion of the M.Med (DHS) programme.

**Results:** About a third (36.1%) of medical students were interested in Internal Medicine, 44.4% Resident doctors were interested in Obstetrics & Gynaecology, while just over half (54.6%) of District Medical Officers were interested in Surgery and Public Health. The overall factors influencing career choices were personal interest and hope for job satisfaction.

About two thirds (64.6%) of the respondents perceived that Ignorance and the alleviation of poverty were leading to the main health needs of Zambia. Three quarters (72.2%) of group 1 92.0% of group 2 and 86.4% of group 3 considered Public Health and hospital based General Practice as the appropriate specialization for district hospital medicine. More than two thirds (66.6%) of the medical students and nearly half (48.1%) of the resident doctors would prefer to work in Tertiary hospitals while 63.6% of District Medical Officers would prefer working in Secondary Care hospitals. More than half (55.5%), while 87.7% and 81.3% of groups 1, 2 and 3 respectively indicated that the M.Med (DHS) course was good for Zambia and supported the Health Reforms emphasis on the district.

**Conclusion:** The study found out that most Zambian medical graduates would like to be specialists working in Tertiary health care hospitals for personal interest and job satisfaction. This is despite their indication that Zambia's health needs were essential health care/primary health care which can cost effectively be dealt with at primary and secondary health care levels. The M.med (DHS) course was considered to be good for Zambia and it supports the Health Reforms.

The study recommends that specific policies be agreed upon by the Ministry of Health and UNZA School of Medicine to train medical doctors for the health needs of Zambia and set up or make available a National Medical Manpower Plan.

## ACKNOWLEDGEMENTS

I am greatly indebted to the Department of Community Medicine and the staff members for help, encouragement and support which enabled this study to be done.

I Thank the UNZA School of Medicine, Kitwe and Ndola Central Hospitals, chainama college, and the Ministry of Health for allowing the study to be conducted in their various institutions and also for the co-operation of the various respondents and participants - Medical Students, Doctors, and Lecturers.

My appreciation goes to Barclays Bank of Zambia and Directorate of Manpower and Human Resource Development for providing the funds to carry out this study.

I furthermore acknowledge Dr. Andrew C. Pearson for providing much of the literature review and helping in soliciting for funds. I also thank Prof. Peter Sims, Dr. Nicholas Ng'andu, Dr. A. Chapman (External Examiner), Dr. Tom Garret and my fellow MPH students, for their objective critique of my protocol that gave the study a scientific shape. I acknowledge too, the much valued help of Miss Hilda Lungu and Dr. B. Kapatamoyo as my Research Assistants.

Lastly but not least I thank Ms. Caroline M. Nyirenda, Ms. Albertina Katungu and Ms. Mutinta Kapapa for their efficient Secretarial Services.



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**LIST OF ABBREVIATIONS**

<b>AIM</b>	Action in International Medicine
<b>CHB</b>	Central Health Board
<b>CMAZ</b>	Church Medical Association of Zambia
<b>DHB</b>	District Health Board
<b>DHMT</b>	District Health Management Team
<b>DMO</b>	District Medical Officer
<b>FGPZ</b>	Faculty of General Practitioners of Zambia
<b>HMT</b>	Hospital Management Team
<b>HRIT</b>	Health Reform Implementation Team
<b>JRMO</b>	Junior Registered Medical officer
<b>M.Med (DHS)</b>	Master of Medicine in District Health Specialization
<b>MOH</b>	Ministry of Health
<b>PHC</b>	Primary Health Care
<b>SHC</b>	Secondary Health Care
<b>SOM</b>	School of Medicine
<b>SRMO</b>	Senior Registered Medical Officer
<b>THC</b>	Tertiary Health Care
<b>UNZA</b>	University of Zambia
<b>WHO</b>	World Health Organisation
<b>WONCA</b>	World Organisation of Family Physicians

# 1 CHAPTER

## **INTRODUCTION:**

### **1.1. Background Information.**

Zambia is one of the developing countries in South Central Africa with a land area of 752,600 sq. Km and a total population of 9.2M (1994 Census) distributed among nine provinces and 61 districts. The country is making efforts to develop rural areas and in particular to improve the Government's health delivery system by decentralising control to the district level. Most of its health problems are preventable and can be managed cost effectively by well run and administered District Health Systems (MOH 1996<sub>a</sub>).

In December 1990 the World Health Organisation (WHO) requested a team of consultants to look at the current problems within the District health system. The team found that there were major weaknesses in Clinical and management skills in most districts.

In the health sector the government has supported Primary Health Care (PHC) for over a decade and is aware of a number of constraints including weakness in district health management and hospital clinical and management skills. With increased Political support for overall district development it is realized that an increase of appropriate medical skills will re-inforce ongoing efforts in the Health Reforms. The focus on the District Health Services is the major strategy for improved health throughout the country.

The District health service based on the District provides essential administrative and training support for Primary Health Care (PHC) often because of shortages of doctors,

District Medical Officers (DMOs) are expected to be able to run both the clinic services at the District Hospital and administer the District Health Services. They often lead the District Health Team.

From the 1990 WHO and Ministry Of Health (MOH) consultative meeting, it was realized that there was need for a new type of Postgraduate training to prepare doctors for district leadership, and one which would attract them to make a career as Generalist Doctor/Public Health Specialist at district level.

A joint task force of the MOH, University of Zambia (UNZA) Medical School, Church Medical Association of Zambia (CMAZ) (representing NGO Hospitals) and the Faculty of General Practitioners of Zambia (FGPZ) (mainly Private Sector), was set up and met several times to work out what could be done. Following this and in response to the request from the Ministry of Health, the University of Zambia in collaboration with the MOH, WHO, the Action in Inter-national Medicine (AIM), and the School of Medicine (SOM) developed a Master of Medicine (District Health Specialist) programme to train graduate doctors in the skills required for comprehensive District Health Care. The Training includes the Master of Public health as its first year programme (UNZA 1996).

## 1.2 **Statement of the Problem.**

The only Medical School in Lusaka trains about 40 Zambian doctors (see annex 7) but very few of them find their way into the District Hospitals where they are most needed (see annex 6). Most of these graduates migrate to other countries. Compulsion does not work. Improved Financial incentives would help, but may be unaffordable. This is a common problem in most developing countries. The introduction of a postgraduate programme in Public Health and Hospital based General Practice could be a major factor in retaining and improving career prospects and job satisfaction for those entering into primary /secondary health care at the district level. The General impression and anecdote in Zambia, that the M.Med (DHS) training is second rate, expatriate supported, and lacks international credibility and recognition does need to be addressed. Support from MOH, WHO and other international organisations such as AIM and World Organization of Family Doctors (WONCA) is not enough. There must be support from the Medical profession, not least from young Zambian doctors whom it is hoped will be attracted into the training.

Despite the recommendation and plan for such a specialist in the District Health Services and the proposed Postgraduate training leading to M.Med (DHS) no study of doctors' views has been conducted. The Health Reforms are being implemented in the absence of doctors trained in the necessary skills.

The M.Med (DHS) programme was scheduled to begin in 1993 but has had to be postponed because of lack of applications from eligible candidates. Only three doctors have shown any interest in the training. Currently only one remains. More information and publicity about the M.Med (DHS) programme could answer many of the questions about the programme. This present study was conducted to establish the views of doctors about this issue and their career aspirations in general.

### **1.3 Literature Review.**

The health services regardless of whether they are provided by the state, or by private doctors and whether doctors are paid by salary or by capitation fee or some mixture of the two, requires a referral system from one level of care to the next. There are differences between the Developed and developing countries. In the developed world, physicians take the main responsibility for Primary Health Care (PHC). There are sufficient doctors to undertake this work and sufficient wealth to sustain them. **Hospital services** are all at specialist tertiary health care (THC) level. The intermediate level of Secondary Health Care (SHC) has virtually been eliminated with few exceptions. Referral is straight from Primary to Tertiary (Pearson 1995 a ).

In the developing world the situation is different. These countries are relatively poor with large populations and few doctors. By 1989, in Zambia, there was a hospital bed for every 283 persons.



The number of people per physician was 7,154 and per nurse was 744, ratios far below the recommended (World Bank, 1994). Fifty percent of the people live in remote villages. Zambia has a 58% rural population (MOH, 1996) and PHC is done mainly by non physicians, such as clinical officers, community nurses or village health workers (VHWs) serving in Health Posts and Health Centres.

Public Health facilities in Zambia consists of three central hospitals, nine general hospitals (one for each province), 68 district hospitals and 883 urban and rural health centres and outreach clinics (UNICEF, 1994). Hospital care is still at two levels.

At the apex of the health system are specialized tertiary health care hospitals. Between these and the Primary health care services there are the district hospitals, staffed for the most part by General Medical Officers (GMO). They usually cover the whole spectrum of care, including general surgery and abnormal obstetrics to save lives. These hospitals provide Secondary Health Care (SHC) and refer cases beyond their competence to specialists at Tertiary Hospitals whenever necessary (Pearson, 1995).

In developing countries, physicians first meet patients, at the first referral hospital and on the interface with primary care rather than in the community. In these countries, secondary care district hospitals, have a far greater importance in the overall provision of health care than they do in the industrialized west (WHO, 1981) .

In the enthusiasm to develop Primary Health Care, in preference to tertiary care, the secondary care hospitals in between were forgotten. Perhaps international advisers accustomed to the western style did not realize their importance. The beginnings of a counter-reaction came with the conference called in 1981 in Karachi. It was sponsored by WHO and the Aga Khan Foundation who published a report on *"The Role of Hospitals in Primary Health Care"*.

This report supported the role of district hospitals and indicated that without them PHC could not function effectively. In 1987, WHO's Global Program Committee adopted a new policy, in support of the district health system. In this, PHC and SHC were accepted as vitally interrelated. A district health system based on Primary health care is a self-contained segment of the National Health System (WHO, 1987).

It has since been realized that current medical education is inadequate to attract doctors and provide them with the skills to work effectively at this level in Developing Countries. Nigeria was the first country to respond to this deficiency in medical education. It started a postgraduate training in hospital based General Medical Practice in 1981 to serve the country's Government, NGO and Private District hospitals. The programme has become popular and is solving the problems of staffing the rural areas in Nigeria (Pearson, 1990). Other countries have begun to follow. Similar programs for doctors have started in countries such as Nepal in 1987 (Tribhuvan University 1993), Malaysia (Shahabudin, et al 1995), India (Thomas, 1990), Australia (RACG, 1992) and efforts towards this in Zambia began in 1991 (Bagshawe, 1992).

The place of the District Doctor as a generalist and within the discipline of General Practice/Family Medicine seems firmly assured (WONCA, 1995). Dr. U. Koko, WHO Regional Director, SE Asia said "*The doctor of tomorrow is a General Practitioner, who is basically a Clinician.... the backbone of the health system ..... able to provide continuing comprehensive health care to individuals and the community and also manage the health system as needed. More attention should be given to prepare this new kind of Medical doctor ..... skilful in clinical sciences and also adept communicator ..... who takes a leadership role at the community level* (Koko, 1989)", while Professor Monekosso (1989), the then, WHO Regional Director, African Region also said that

*"Medical Schools should therefore listen to those who use their products, so that they have a say in the profiles of the doctors that they train"* .

Action International Medicine (AIM) has also been supporting initiatives to start programmes of training generalist medical doctors for District Health Systems in many countries around the world (AIM, 1996).

Despite this international school of thought among policy makers for this kind of doctor, few researches have been conducted into get the doctors.

A study to analyse the factors affecting career choices among final year medical students and Junior doctors was done in Nigeria in 1986. It was found that General Practice was first choice by the majority of the medical students second only to Obstetrics and Gynaecology while the Junior doctors ranked it fifth among the clinical specialities. The overall factor that affected career choices was said to be "the needs of the country" (Olebute et al., 1986)

Zambia's Health Reforms is, based on the vision to provide Zambians with equity of access to cost effective quality health care as close to the family as possible. It is guided by the principles of leadership, accountability and partnership (MOH, 1992). The Reforms have been commended by various people and countries. The changes are now in their advanced implementation stages. The reforms have introduced health Boards - District Health Board (DHB), Hospital Management Board (HMB) and Central Health Board (CHB) - each having an executive health management team (ie District Health Management Team (DHMT), Hospital Management Team (HMT) and Central Health Board secretariat respectively) (HRIT, 1996).

The legal framework for the establishment and functions of these various bodies is the National Health Services Act of 1995 enacted by Parliament on 6th September, 1995 (MOH, 1995).

The various Health Boards at District, Hospital and Central (central) level provide a place for community participation and partnership. The health Management Teams which are responsible for the implementation and day to day running of the health services at these levels require technical skilled manpower. One of the components of the Health Reforms implementation process is human resources development (HRIT, 1996). A study done to assess the Health Reforms programme in Zambia found that the DHMTs have been firmly set up and are recognised departments in the districts with administrative authority on health issues. There is however a shortage of qualified staff at the DHMTs. The positions need to be filled and possibly, fresh training given to the new appointees (Ngulube, 1995).

The HRIT has now published job descriptions and qualifications for members of these teams (MOH, 1995). Also an essential health care package to be provided at each level of the referral system (health post --> tertiary hospital) is being finalised. These will guide in personnel and training requirements. The University of Zambia, has offered of a Postgraduate programme (MMed DHS) for doctors to acquire management and clinical skills in leadership in district health services in support of the human resources needs of the Health Reforms (UNZA, 1996).

## CHAPTER 2

### 2. OBJECTIVES.

#### 2.1. General Objective

To find out career aspirations of Zambian Medical Graduates and the factors that influence the choices, in the light of Training for district health systems.

#### 2.2. Specific Objectives:

1. To determine the knowledge and attitude on Postgraduate General Practice Training for District Health services among undergraduates and Medical Graduates in Zambia.
2. To determine the interest of working in District Health Service among the final year Medical Students and Junior Doctors.
3. To find out if not being aware of the Mmed. (DHS) at UNZA Medical school is a contributory factor to lack of interest for this programme.
4. To introduce the M.Med (DHS) programme to potential candidates.
5. To make recommendations to the Health Reform Implementation Team (HRIT) and the Planning Unit at the Ministry of Health and to the School of Medicine concerning the District Specialist training programme.

### 2.3 Hypothesis

1. Not being aware of the M.Med (DHS) training programme at UNZA School of Medicine is the cause of lack of interest for the course.
2. Zambian Medical Graduates are unaware of training needs for rural areas



## CHAPTER 3

### METHODOLOGY.

#### 3.1. Study type:

This was a descriptive Cross-sectional study. The conceptual framework of the study was problem analysis whose variables are as illustrated below. Each of these variables was measured by some indicators in the questionnaire.

Lack of awareness  
of the Programme

Programme is  
second-rate and  
lacks inter- national credibility

Low application for  
M.Med DHS programme  
for District Health  
Services (District Health  
Training Systems)

Lack of Information  
and publicity of  
the programme

Career preference  
preference

Rural versus  
Urban exposure

Admiration for  
the Specialist  
Doctor

Financial  
Returns

The needs of  
the Country

#### 3.2. Data collection techniques:

This was done by a 17 item self-administered closed and open ended questionnaire (see annex 1). One focus group discussion was conducted at Chainama College of Health Sciences to supplement the information.

The four item topic guided focus group discussion (see Annex 2) included lecturers and final year students of the College.

### 3.3. Sampling and Study population.

Owing to small numbers the whole population was contacted. This included all the 39 final year Medical Students of the 1996 class at UTH, all the Resident doctors at Ndola and Kitwe Central hospitals - 30 in all - and all the Medical Officers in the 61 district hospitals. The Resident doctors included the Junior Resident Medical Officers (JRMO) and the Senior Resident Medical Officers (SRMO) who had not yet embarked on any Postgraduate Training. Estimated total sample size was 130.

Only Zambians trained at UNZA School of Medicine were included in the study in order to allow comparisons to be made with views of the medical students and reflect the Zambian view as much as possible. Many Zambian hospitals have considerable numbers of non Zambian trained doctors. It was found that out of the 61 gazetted district hospitals then, only half of them (31) of them had Zambian doctors, 13 had expatriates and 17 had no medical officers (see annex 6 for the list of the districts). A list of 18 and 12 Zambian Trained Resident doctors at Ndola and Kitwe Central hospitals respectively was obtained. The actual total sample size was therefore 100 consisting of 3 groups. Group 1 Medical Students = 39; Group 2 Resident doctors = 30; Group 3 District medical Officers = 31.

### 3.4. Pilot Study.

A pilot study to assess and evaluate the questionnaire was done at UTH on the Resident doctors. So UTH was not used in the main study. The respondents had no difficulty in answering the questions and no changes were made in the questionnaire.

### 3.5. Data Collection:

Permission to perform the study was obtained from the Dean of the School of Medicine, the Administrators of Ndola and Kitwe Hospitals, Chainama college and the Ministry of Health for the District Hospitals (see annex 3).

Data was collected by two Research Assistants and the author. The questionnaire was administered to the Medical Students during a lecture.

Efforts to follow those who were absent were made. Resident doctors were asked to fill the questionnaire and return it as soon as possible. District Medical Officers were sent the questionnaire via the Provincial Medical Officer through the Ministry of Health. Filled in questionnaires were returned either via the Provincial Medical Officer or directly sent to the Ministry of Health.

A Focus group discussion of some 11 people (seven final year students and four lecturers) was conducted and moderated by the author with the help of a recorder and an observer.

### 3.6. Ethical Considerations:

The study was approved by the Research and Ethical Committee (See Annex 4). A consent form was attached to the questionnaire for respondents to read and sign (see Annex 5). All information was kept confidential and the results provided, so that no individual was recognized.

### 3.7. Data processing and Analysis:

Before analysis, the data was sorted out to remove incomplete and spoiled questionnaires. One filled questionnaire was excluded from analysis due to incomplete responses and missing pages. Responses to closed questions were analysed with Epi-Info epidemiological analysis program (Dean, 1994). Responses to open questions were tabulated in their entirety for manifest content analysis (Field, 1985). This method entailed close reading and re-reading of the text to identify persistent word and phrases. Categories were drawn from the data and common themes derived. The same process in part was used for the analysis of the Focus group discussion responses.

The differences in the field of interest and specialization for district hospital medicine, given to general Practice and to other Specialities were statistically compared by the  $X^2$  test.

## CHAPTER 4

### 4. STUDY FINDINGS

#### 4.1 Demographic Characteristics

Out of 39 students (group 1), 36(92.3%) filled in the questionnaire. Their mean age was 27.0 (years) with standard deviation of 2.0 and 72.2% were males and 27.8% were females.

Out of 30 Resident doctors (group 2), 27(90.0%) filled in and returned their questionnaires. Their mean age (years) was 28.8(1.8) with 92.6% males and 7.4% females.

There were 31 District Medical Officers (Group 3) comprised of 86.4% males and 13.6% females with a mean age of 35.9(5.5). About three quarters, (71.0%) filled in and returned their questionnaires. See table 1 for other characteristics.

Overall, the response rate was 85(85.0%), with a mean age of 29.9(4.6) and majority of respondents being male 82.4% and 17.6% being females. On the marital status, 52.4% were single and 46.4% were married while 7.1% had a previous rural background and 63.5% had an urban background.

## 4.2 **Career choices and Specialization for District Health Systems**

A question to determine the field of interest of the respondents and factors influencing such career choices was asked.

Tables 2 and 3 summarize the responses obtained respectively. There were different popular career choices in all the groups. Many medical students (36.1%) were interested in Internal Medicine while many Resident Doctors showed interest in both Obstetrics & Gynaecology and Paediatrics, and the District Medical Officers were interested in both Surgery and Public Health. The proportion choosing general practice was 8.3 percent in Group 1, 3.7 percent in Group 2 and 22.7 percent in Group 3 (ranking it in 5th, 4th and 2nd positions respectively), the difference being highly significant ( $X^2 = 36.98$ ;  $P < 0.001$ ).

**TABLE I: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS**

<b>No</b>	<b>MEDICAL STUDENTS</b>	<b>RESIDENT DOCTORS</b>	<b>DISTRICT MEDICAL OFFICERS</b>	<b>OVERALL</b>
<b>AGE (Yrs)</b> Mean (SD) Mean (St.Dev)	27.0(2.0)	28.8(1.8)	35.9(5.5)	29.9(4.6)
<b>SEX:</b>				
Male	26(72.2%)	25(92.6%)	19(86.4%)	70(82.4%)
Female	10(27.8%)	2( 7.4%)	3(13.6%)	15(17.6%)
<b>MARITAL STATUS:</b>				
Single	29(82.9%)	14(51.9%)	1 (4.5%)	44(52.4%)
Married	5(14.3%)	13(37.1%)	21(95.5%)	39(46.4%)
Others	1( 2.8%)	0 (0)	0 (0)	1 (1.2%)
<b>PREVIOUS BACKGROUND:</b>				
Rural	1 (2.8%)	3(11.1%)	2 (9.1%)	6 (7.1%)
Urban	26(72.2%)	19(70.4%)	9(40.9%)	54(63.5%)
Both	9(25.0%)	5(18.5%)	11(50.0%)	25(29.4%)

**TABLE 2: CAREER CHOICES (FIELD OF INTEREST) BY GROUP -  
RESPONSES ARE RECORDED IN PERCENTAGES**

CAREER	R E S P O N S E S			
	Group 1 TOTAL (%)	Group 2 (%)	Group 3 (%)	Group 3 (%)
Internal Medicine	36.1 <sup>(1)</sup>	18.5 <sup>(2)</sup>	0	21.2
Surgery	22.2 <sup>(2)</sup>	7.4 <sup>(3)</sup>	27.3 <sup>(1)</sup>	18.8
Obstetrics and Gynaecology	19.4 <sup>(3)</sup>	22.2 <sup>(1)</sup>	9.1 <sup>(4)</sup>	17.6
Paediatrics	11.1 <sup>(4)</sup>	22.2 <sup>(1)</sup>	13.6 <sup>(3)</sup>	15.3
General Practice	8.3 <sup>(5)</sup>	3.7 <sup>(4)</sup>	22.7 <sup>(2)</sup>	10.6
Public Health	0	7.4 <sup>(3)</sup>	27.3 <sup>(1)</sup>	9.4
Others	2.8 <sup>(6)</sup>	18.5 <sup>(2)</sup>	0	7.1
	99.9	99.9	100.0	100.0

**NOTE:** Superscript indicate order of preference by group



**TABLE 3: FACTORS INFLUENCING CHOICE OF CAREER - RESPONSES ARE RECORDED IN ACTUAL NUMBERS**

FACTORS	NUMBER OF RESPONSES			
	Group 1 n = 35	Group 2 n = 26	Group 3 n = 22	Total n = 84
Others: Personal interest, hope for job satisfaction	20	16	11	47
The needs of the Country	3	7	7	17
Opportunity for Research	3	2	3	8
Admiration for the Doctor in the Specialty	5	1	0	6
Good Financial Returns	2	1	0	3
Family Preference	2	0	0	2
Opportunity to travel Overseas	0	0	1	1

More females are interested in General Practice (13.3%) than males (10.0%). Table 4 shows the effect of background on career choices.

On factors influencing career choices, personal interest, and hope for job satisfaction ranked highest in all the groups. The second factor for group 1 was admiration for the doctor in the specialty while both group 2 and group 3 put the needs of the country as second factor.

Table 5 shows the respondents' views on the appropriate specialization for district hospital medicine. All the groups and both sexes indicated that public health with hospital based general practice was the appropriate specialization. General Surgery was the second choice while Obstetrics and Gynaecology was seen as not essential for district hospital practice by all the groups. The proportion of respondents who chose Public Health and hospital based General Practice as the appropriate specialization among the three groups was 72.2%, 92.0% and 86.4% respectively. The difference being not significant ( $X^2 = 6.13$ ;  $P > 0.4$ ).

### **4.3 Preference of where to Practice**

A question on Zambia's health needs followed by preference of where to work with reasons were asked. About 93% (79/85) chose the health need responses suggested on the questionnaire while 7% (6/85) responded to none of the above and gave their own responses. Of the 79, 51(64.6%) thought that Zambia's health needs were overcoming ignorance and poverty alleviation (possibly suggesting essential Primary Health Care) while 16(20.3%) chose good National Health Policies, see Table 6. The few who gave their own responses were from Group 1 and Group 3. The former felt that the needs are improving the conditions of service to stop the brain drain of qualified professionals. The latter felt that all the responses given in the questionnaire are Zambia's health needs.

Table 7 shows the responses on preference of where to work by group, sex, marital status and background. Tertiary health care work was preferred to work in secondary health care. Both males and females prefer to work in THC services.

More single respondents preferred to work in the THC while married respondents preferred SHC. Background did not seem to affect the preference of working in THC.

The proportion of those who preferred to work in District Hospitals were: group 1, 6; group 2, 8; and group 3, 14; the differences being highly significant ( $X^2 = 26.96$ ,  $P > 0.001$ ). About (86.0%) (73/85) gave reasons for their preference and these are recorded in Table 8.

Responses on what would be the long term solution to the problem of staffing in rural areas are given in Table 9. Providing incentives is rated high as a solution by all the groups and sex differences does not affect this view. Groups 2 and 3 put Postgraduate Vocational Training in rural practice as their second long term solution. Use of compulsion was not favoured at all.

**TABLE 4: EFFECT OF BACKGROUND ON CHOICE OF CAREER/FIELD OF INTEREST: RESPONSES ARE IN ACTUAL NUMBERS (PERCENTAGE)**

CAREER	BACKGROUND		
	RURAL	URBAN	BOTH
Surgery	2 (33.3)	10(18.5)	4 (16.0)
Obstetrics and Gynaecology	1 (16.7)	6(11.1)	8 (32.0)
Internal Medicine	1 (16.7)	13(24.1)	4 (16.0)
Paediatrics	1 (16.7)	12(22.2)	0 (0.0)
General Practice	0 (0.0)	5(9.3)	4 (16.0)
Public Health	1 (16.7)	3(5.6)	4 (16.0)
Others	0 (0.0)	5(9.3)	1 (4.0)
	<b>6(100.0)</b>	<b>54(100.1)</b>	<b>25(100.0)</b>

**TABLE 5: RESPONDENTS' VIEWS OF THE APPROPRIATE SPECIALIZATION FOR DISTRICT HOSPITAL MEDICINE BY GROUP AND SEX. THE RESPONSES ARE RECORDED AS PERCENTAGES**

SPECIALIZATION	R E S P O N S E S				
	GROUP 1 (%)	GROUP 2 (%)	GROUP 3 (%)	MALE (%)	FEMALE (%)
Public Health with hospital based General Practice	72.2	92.0	86.4	63.8	73.3
General Surgery	16.7	4.0	13.6	10.3	20.0
Internal Medicine	8.3	4.0	0.0	0.0	0.0
Obstetrics and Gynaecology	0.0	0.0	0.0	0.0	0.0
Paediatrics	2.7	0.0	0.0	0.0	0.0
	<i>99.9</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

**TABLE 6: RESPONDENT'S VIEWS OF ZAMBIA'S HEALTH NEEDS:  
RESPONSES ARE RECORDED IN NUMBER (PERCENTAGE)**

	<b>R E S P O N S E S</b>			
	<b>GROUP 1 N (%)</b>	<b>GROUP 2 N (%)</b>	<b>GROUP 3 N (%)</b>	<b>TOTAL N (%)</b>
Overcoming ignorance and poverty alleviation	24(68.6%)	17(65.4%)	10(55.5%)	51(64.6%)
Control of communicable diseases	3(8.5%)	0 (0)	3(16.7%)	6 (7.6%)
Good National Policies	5(14.3%)	7(26.9%)	4(22.2%)	16(20.3%)
Increasing Health Manpower	3(8.6%)	2(7.7%)	1(6.8%)	6(7.6%)
<b>TOTAL</b>	<b>35(100.0)</b>	<b>26(100.0)</b>	<b>18(100.0)</b>	<b>79(100.0)</b>

**TABLE 7: PREFERENCE OF WHERE TO WORK IN THE THREE TIER HEALTH SYSTEMS AND THE PRIVATE PRACTICE BY GROUP, SEX, MARITAL STATUS AND BACKGROUND. THE RESPONSES ARE RECORDED IN NUMBERS**

	<b>W H E R E T O W O R K</b>			
	<b>PHC</b>	<b>SHC</b>	<b>THC</b>	<b>PRIVATE</b>
<b>GROUP:</b>				
1 (n = 36)	1	6	24	5
2 (n = 27)	5	8	13	1
3 (n=22)	5	14	3	0
<b>SEX:</b>				
Male (n = 67)	10	26	30	1
Female (n = 15)	1	2	10	2
<b>MARITAL STATUS:</b>				
Single (n = 44)	4	10	27	3
Married (n = 39)	7	18	12	2
Others (n = 1)	0	0	0	1
<b>BACKGROUND:</b>				
Rural (n = 6)	2	0	4	0
Urban (n = 54)	6	18	26	4
Both (n = 25)	3	10	10	2

**NOTE:** PHC - Primary Health Care eg, Health Centre  
 SHC - Secondary Health Care eg, District Hospital  
 THC - Tertiary Health Care eg, Central Hospital  
 PRIVATE - Self employed eg, Private Clinic

**TABLE 8: REASONS GIVEN FOR THE PREFERENCE OF WHERE TO WORK**

<b>WHERE TO WORK</b>	<b>R E A S O N S</b>
<b>PRIMARY HEALTH CARE</b>	<ul style="list-style-type: none"> <li>. Is where basic health services are needed</li> <li>. Cost effective preventive health care</li> <li>. To give health education to the needy</li> <li>. Interest in people as a whole not cases</li> </ul>
<b>SECONDARY HEALTH CARE</b>	<ul style="list-style-type: none"> <li>. Feeling to be a "full" doctor in actual practice</li> <li>. Lack of interference from others</li> <li>. To reduce unnecessary referrals to THC</li> <li>. Closer to the grassroots</li> <li>. More exposure for wide experience</li> <li>. Ideal level for combination of General Practice and PublicHealth skills</li> </ul>
<b>TERTIARY HEALTH CARE</b>	<ul style="list-style-type: none"> <li>. Opportunity for continuing education</li> <li>. Availability of drugs, diagnostic facilities for better management of patients</li> <li>. Access to participate in formation of National Health Policies</li> </ul>
<b>PRIVATE</b>	<ul style="list-style-type: none"> <li>. Not been in rural area, therefore, cannot adapt</li> <li>. It is easier to run a family</li> <li>. Financial gain</li> <li>. Better confidentiality and interpersonal relationship</li> <li>. Poor health facilities in government institutions</li> <li>. Job satisfaction</li> </ul>



**TABLE 9: RESPONDENTS' VIEWS ON THE LONG TERM SOLUTION OF STAFFING RURAL AREAS BY GROUP AND SEX. RESPONSES ARE RECORDED IN PERCENTAGES**

SOLUTIONS	G R O U P S E X				
	1	2	3	M	F
	(%)	(%)	(%)	(%)	(%)
Financial and Material support (incentives)	80.5	81.5	71.4	76.8	86.7
Use Compulsion	0	0	0	0	0
Postgraduate Vocational Training in Rural Practice	5.6	11.1	14.3	10.2	6.7
Improve the status of Rural Doctors	13.9	7.4	14.3	13.6	6.7
	100.0	100.0	100.0	100.0	100.0

Table 11 shows the respondents' opinion of the M.Med (DHS) Programme by group and sex. In group 1 more than half (55.5%) of the respondents and more than three quarters of both group 2(87.7%) and group 3(81.3%) felt that the programme is good for Zambia and support the health reform emphasis on the district. One-third of Group 1 respondents thought that the programme lacked international credibility and recognition, while 13.0% and 12.5% of Group 2 and Group 3 respectively showed concern on the same matter. Only one (1.9%) male of Group 1 thought the programme is not appropriate for Zambia. Sex did not affect the overall opinion.

Respondents were asked to freely comment about the programme. More than three quarters made comments listed in Table 12. On being asked on whether they would opt for this kind of Postgraduate training, 35.0% of the total respondents said they would opt for it, 43.7% would not and 26.3% are not sure (Table 13). Nearly 40% of males would opt for it while half of the women would not opt for this programme.

**TABLE 10: RESPONDENTS' AWARENESS OF THE M.MED (DHS) AT  
UNZA SoM BY GROUP**

	R E S P O N S E S	
	AWARE	NOT AWARE
	Number (%)	(Number (%))
Group 1 (n = 36)	24 (66.7%)	12 (33.3%)
Group 2 (n = 27)	9 (33.3%)	18 (66.7%)
Group 3 (n = 20)	11 (55.0%)	9 (45.0%)
<b>TOTAL: (n = 83)</b>	<b>44 (53.0%)</b>	<b>39 (47.0%)</b>

**TABLE 11: RESPONDENTS' OPINION OF THE M.MED DHS  
PROGRAMME BY GROUP AND SEX. RESPONSES ARE  
RECORDED IN PERCENTAGES**

O P I N I O N	G R O U P			S E X	
	1	2	3	M	F
Good for Zambia and support Health Reform emphasis on the district	55.5	87.0	81.3	73.6	69.2
Not appropriate for Zambia	3.7	0	0	1.9	0
It is the same as Undergraduate	7.4	0	6.2	3.8	7.7
It is just a 'sham' and lacks internationally credibility and recognition	33.3	13.0	12.5	20.7	23.7
	99.9	100.0	100.0	100.0	100.0

**TABLE 12: FREE COMMENTS ABOUT THE M.MED (DHS) PROGRAMME**

<b>GROUP</b>	<b>PERCENTAGE OF RESPONDENTS</b>	<b>COMMENTS</b>
1	50%	<ul style="list-style-type: none"> <li>. Need to give it international credibility</li> <li>. No enough information about the programme</li> <li>. Advertise the programme</li> <li>. It is good for district work</li> <li>. Better call the course M.Sc.GP</li> </ul>
2	100%	<ul style="list-style-type: none"> <li>. Good programme but little information about it (about 75%)</li> <li>. It is the Zambians who know what it is best for them with or without international recognition</li> <li>. More doctors should be encouraged to take up this course</li> </ul>
3	100%	<ul style="list-style-type: none"> <li>. Right programme and need international affiliation</li> <li>. Will improve capacity of the doctor</li> <li>. It is an incentive on its own</li> <li>. Need to be conducted by qualified people</li> <li>. Rather too long</li> <li>. No enough information about the programme</li> </ul>

More respondents (39.1%) with both urban and rural previous background would opt for it than rural or urban exposure alone. The proportional differences in groups are highly significant while those of sex are not significant. See Table 13 for actual numbers.

Respondents were asked to comment on anything of importance that can contribute to improvement in management and training for district health systems. 64.7% made some comments which are grouped below according to category of the respondents, and in order of their frequency.

**Medical Students (61.1% commented)**

1. More incentives for doctors working in rural areas.
2. Staff district hospitals with doctors trained in General Practice.
3. Need to advertise the M.Med (DHS) with provision of funds and appropriate training facilities.
4. Train district health workers abroad.
5. Find appropriately, district experienced lecturers, for M.Med (DHS).

**Resident Doctors (63.0% commented)**

1. Train more staff (not specific on type).
2. Provide good accommodation.
3. Refresher and in-service courses for all staff.
4. Train doctors in MPH.
5. Every district should have a training centre to lessen expenditure on hotel and food.
6. Provision of resources to carry out the services.

**TABLE 13: RESPONDENTS' VIEW ON OPTING FOR M.MED (DHS) TRAINING BY GROUP, SEX AND BACKGROUND. RESPONSES ARE RECORDED IN ACTUAL NUMBERS (PERCENTAGES)**

	RESPONSES		
	Yes	No	Not Sure
<b><sup>X</sup>GROUP</b>			
1 (n = 34)	3(8.8%)	18(52.9)	13(38.2)
2 (n = 26)	17(65.4%)	6(23.1%)	3(11.5)
3 (n = 20)	8(40.0%)	7(35.0%)	3(15.0)
<b><sup>Y</sup>SEX</b>			
Male (n = 6)	25(37.9%)	24(36.4%)	17(25.7)
Female (n = 14)	3(21.4%)	7(50.0)	4(28.6)
<b><sup>Z</sup>BACKGROUND</b>			
Rural (n = 6)	1(16.7%)	4(66.7%)	1(16.7)
Urban (n = 51)	18(35.3%)	14(27.5%)	19(37.2)
Both (n = 23)	9(39.1%)	13(56.5%)	1(4.3)

X             $X^2 = 21.16$   
                   P = 0.0002

Y             $X^2 = 1.48$   
                   P = 0.48

Z             $X^2 = 12.22$   
                   P = 0.02

#### **4.5 FOCUS GROUP DISCUSSION RESPONSES**

One focus group discussion was conducted at Chainama College of Health Sciences involving lecturers and students. Findings are presented in the form of comments as follows (see the topics in Annex 6):

##### **Comments on Zambia's Health Needs**

- . Most problems are preventive than curative.
- . Need for Health Information, Education and Communication to remove ignorance e.g., in Family Planning.
- . Training should be according the need and should focus on prevention of illness.
- . Motivation of health personnel through hardship allowances, salary increment, etc to improve quality of services.
- . Deliberate policy for producing drugs locally.

##### **Comments on problems of posting and retaining of young Zambia**

##### **Doctors in District Hospitals**

- . Put good conditions of service, salary, hardship allowance, accommodation and transport.
- . Training of doctors will determine where he is going to work. Need for rural/community exposure.
- . Contract with some reward at the end e.g., further training.
- . Encouraging district doctors' Journal Club, et.
- . Compulsory through National Service with above incentives.



The order of preference on appropriate specialization for district hospital work, which emerged from the focus group discussion were:

1. General practice
2. Public Health
3. General Surgery
4. Obstetrics & Gynaecology and Paediatrics

**Comments on the M.Med (DHS) Programme to be started at UNZA School of Medicine**

The participants unanimously agreed that the programme is **GOOD** for Zambia with comments such as:

- . It is practical because it is in the district where the doctor will train and work.
- . We support it and feel that this is the best qualification for district health work.

## CHAPTER 5

### DISCUSSION.

#### Methodology.

There were no major problems encountered during the study which was carried out between November 1996 and February 1997. Apart from the inherent weakness of a descriptive cross-sectional study, lack of sampling methods, and a small sample size in this study are some of the limiting factors. Two or more Focus group discussions to include more views of the College's population would have been better but was not possible due to time factor and the College's calendar arrangements.

#### Demographic data

As expected, age distribution and marriage rate increased from medical students to district medical officers. The low female ratio (17.6% of total respondents) may be accounted for by low female recruitment in the medical school and also that after graduation most female doctors prefer to remain and work in Lusaka at UTH. The low response rate observed for District Medical Officers in comparison to the other two groups may be due to problems of poor communication and postal services. Previous background on respondents was sought to show if it had any effect on career choices and preference of where to work.

#### Career choices and specialization for District Health Systems.

The choice of internal Medicine by the medical Students was also observed in a study "*Student's Views on the Teaching and Learning in the Medical School of the University of Zambia (Libetwa et al, 1996)*".

It is said in that study that the high rating of Medicine by students may be suggestive of good performance by the lecturers. The choice of General Surgery and Public Health (none for Internal Medicine) by the district doctors is of interest as it may show the skills required at this level.

There is progressive appreciation of General Practice from Medical students, (who ranked it in 5th place from the traditional specialties) to Resident doctors (4th place) and District Medical Officers (2nd place). These differences were highly significant ( $X^2=36.98$   $P=0.001$ ) and the result may be showing the influence of tertiary Clinical Specialization on the Medical Students as opposed to generalist skills required in district hospitals. This difference may also be seen in that Medical Students were not interested in Public Health while District Medical Officers (DMOs) chose it as one of their first fields of interest. These results may indicate that General Practice (hospital based) training may become popular among district doctors.

There are also interesting differences in factors influencing career choices between medical undergraduates and medical graduates. Despite personal interest and hope for job satisfaction being the first factor in all the groups there are differences in the second factors.

Medical students are influenced by Admiration for the doctor in the Specialty while the Resident doctors and DMOs are influenced by the needs of the country.

It is interesting to compare this study with the one done in Nigeria. Olobute et al. (1986) found that medical students ranked General Practice second to Obs/Gynaecology while medical graduates ranked it in 5th place which is the opposite of the results in this study. A similar study done in the United Kingdom by Egerton (1985) studied the choice of career of Belfast medical graduates, and found that 33.8% settled for General Practice and only 4.6% chose Surgery and the same number Obstetrics and Gynaecology. This may reflect the long and well established discipline of General Practice in the UK. Both groups in the Nigerian study gave "The needs of the Country" as the factor influencing their career choices.

These results may indicate that the Role Model is an important factor in student education and career choice while continued Medical Education and postgraduate training based on the country's needs may be more effective for clinician doctors.

Previous background did not affect career choices in this study as shown by results in Table 4. On the appropriate specialization for District Hospital medicine it is interesting to note that all the groups are strongly agreed on Public health with hospital based General Practice (see Table 5). The Sharp contrast in the need of surgical skills as opposed to Internal Medicine puts General surgery in the second place. It is difficult to understand why Obstetrics and Gynaecology was seen as not essential for District Hospital practice by all the groups given the prevalence of emergency Obstetrical cases in District Hospitals. A further evaluation of this may be required.

The 1st choice of the combination of Public Health and General Practice (hospital based) as the appropriate District Hospital specialization is important in starting a M.Med (DHS) whose components are similar. This is strengthened by the fact that the differences in the proportion of respondents who chose this specialization in the groups is not significant. Respondents therefore support Postgraduate General Practice training for District Health Systems/services.

### **Preference of where to work.**

In order to compare whether preference of where to work in the three tier National Health Services and the private sector reflected National health needs, a question on Zambia's health needs followed by preference of where to work with reasons were asked. Ignorance and alleviation of poverty was indicated as a first health problem of Zambia (Table 6) Recent reports indicate that Zambia's poverty rate is nearly 70% (MOH, 1996). In the presence of dire poverty, malnutrition, poor housing and illiteracy, health care is often ineffective. Ignorance is evidenced by high rates of communicable disease illnesses, low family planning utilization and late reporting for medical attention. All these problems can be dealt with cost effectively at primary and secondary health care levels not at tertiary care.

Two thirds (66.7%, 24/36) of medical students and 48.1% (13/27) of Resident doctors preferred to work in tertiary hospitals. About the same number, 63.6% (14/22) of the district doctors wanted to remain in district health work. This is logical otherwise it would have indicated their being there not by choice. It is interesting to note that quite a number from the resident doctors indicated primary and secondary health care - a total of 48.1% when the two responses are combined.

This shows that half of these doctors want to work where they can attend to Zambia's health problem.

The responses to the reasons for their preferences of where to work illustrate this (see Table 8). However the Medical student's preference for THC does not match their choice for Zambia's health needs. This may further confirm the tertiary hospital training influence on the students despite the needs of the country and also the influence of the "Needs of the country" as a factor in career choices among working doctors as already referred to above. *Previous background did not affect preference of where to work.* Two thirds (66.7%) with rural background preferred to work in THC still while less than half (44.4%) with Urban background preferred PHC and SHC.

On the problems of staffing in rural areas all the groups indicated the need for incentives. This is a felt need by most health workers. Postgraduate vocational training was a second solution chosen by group 2 and 3. This is important as the focus group discussion revealed that such training may prove to be incentive by itself (see focus group discussion responses on M.Med (DHS) programme). Compulsion was not a preferred solution by the respondents. This may indicate that, if quality health services are to be rendered, workers should be in rural areas by choice not by force.

### **M.Med (DHS) Programme.**

Table 10 shows that the total 'not aware' rate is 47.0% and that most of these (66.7%) are from Resident doctors who are young and have not embarked on any postgraduate program as opposed to the district doctors who are older and may not have interest in further academic education (see Table 7).

## **CHAPTER 6**

### **CONCLUSION.**

This study has verified that:

1. Most Zambian medical graduates aspire to be specialists in Internal Medicine (21.2%), Surgery (18.8%) Gynaecology and Obstetrics (17.6%) Paediatrics (15.3%) while few aspire for General Practice (10.6%), Public Health (9.4%) and other specialties (7.1%). All are influenced by Personal interest and Job satisfaction.
2. Medical undergraduates and medical graduates both support postgraduate general practice training for district health systems.
3. Most that medical students prefer to work in Tertiary hospitals while 65% of junior doctors would prefer working in District Health Services.
4. Two thirds (67%) of the potential candidates for the M.Med (DHS) programme are not aware of it. This therefore may be a contributory factors to lack of interest for this programme which partially verifies the study's first hypothesis.
5. By virtue of the study being carried out among potential candidates for the M.MED (DHS) and the high rate of those opting for it, introduction of it can be assumed to have taken place.
6. Zambian medical graduates are aware of the training needs for rural areas refuting the study's 2nd hypothesis.

## **RECOMMENDATIONS.**

Following the findings of this study it is recommended that:

### 1. **University of Zambia Medical School**

- (a) Start General Practice training at postgraduate level
- (b) Conduct consultative meetings to agree on duration and name of the M.Med (DHS) course.
- (c) Look into the International Recognition of the M.Med (DHS) course.
- (d) Assist the Ministry of Health in training health workers for the District Health Care (Primary Care) as it is doing for Tertiary hospital care at postgraduate level.

### 2. **Ministry of Health**

- (a) Look upon the postgraduate training in Public Health and hospital based general practice as incentives for district doctors.
- (b) Encourage such training to support the health reform's emphasis on the district.
- (c) Develop and disseminate a National Medical Manpower Plan.

### 3. Similar studies and cohort studies be conducted in future to compare the present findings and monitor trends of career choices and where to work preferences, including also other professionals such as nurses clinical officers, etc.



## CHAPTER 7.0

### BIBLIOGRAPHY.

AIM, (1996) Action in International medicine Brochure, Mission Statement, District Health systems, London.

Bagshawe A. (1992) Proposal for District Medical Officer Specialist training leading to M.Med (District Health Specialist), A collaborative project between the Ministry of Health and the School of Medicine, 4 (Now included in the University of Zambia Calender 1994- 1996 booklet, 253 - 255)

Christian Academy of Medical Sciences, (1990) The Curriculum of the "Multi-specialty postgraduate programme", CMC campus, Vellore 632002, South India.

Dean, A.G.(1994) EPI-Info version 6: A word processing database and statistics program for epidemiology on microcomputers; Atlanta, Centre for Disease Control and Prevention.

Egerton E.A.(1985) Choice of Career of doctors who graduated from Queens University, Belfast in 1977; *Medical Education* 19, 131-7.

Field P.A., Morse J.M. 1985) Nursing Research: The application of qualitative approaches; London, Groom Helm.

HRIT, (1996 a) Handbook for District Health Board Members, 2nd Edition, Lusaka, 6-9.

HRIT, (1996 b) Handbook for District Health Board Members, 2nd Edition, Lusaka, 4.

Koko U. (1991) Education for Medical Practice Tomorrow, *Medical Education Supplement: 1-28*, 54-60.

Libetwa M., Muliwana N., Katebe J., Kaunda H., Mushinge I., Kongwa P., Kamanga J., Kafula R., Ndubani P., Munachitombwe O.M. (1996) Students' views on teaching and learning in the Medical School of the University of Zambia, Lusaka, 11.

Ministry of Health, Zambia, (1996 a) National Strategic Health Plan (Investment Plan) 1995-1999, from Vision to Reality, Lusaka, 52.

Ministry of Health, Zambia (1996 b) National Strategic Health Plan (Investment Plan) 1995-1999, from Vision to Reality, Lusaka, 6.

- Ministry of National Health Reform Strategic Plan, Lusaka, 6. Health, Zambia, (1992).
- Ministry of Health, Zambia, (1995a), The National Health Services Act, (No 22 of 1995), 222-227.
- Ministry of Health, Zambia, (1995 b) The District Guideline, Lusaka, 22-25.
- Monekosso L.G. (1991), Delegates comments, Education for Medical Practice Tomorrow, *Medical Education Supplement 1-28*, 96.
- Ngulube T.J., Mwanza K.M., (1995) The Health Reform Programme in Zambia, A summary of baseline findings, the performance of health services in Western Province, Lusaka, 51-67.
- Olebute O., Pearson C.A., Kale O.A. (1986) Choice of General Practice for Postgraduate training among medical graduates and undergraduates in Nigeria, *Medical Education*, **20**, 349-353.
- Pearson C.A.(1995) The Role of District Hospitals and the Action in International Medicine Network, *Infectious disease Clinics of North America*, **9**, 2, 391 - 393.
- Pearson C.A. (1995 b) The role of District Hospitals and the Action in International Medicine Network, *Infectious disease Clinics of North America*, **9**, 2, 391 - 394.
- Pearson C.A. (1990) Medical Administration for Front Line Doctors, London, FGS Communication Ltd., 180-181.
- Royal Australian College of General Practitioners, (RACG) (1992) "Training Curricula in Surgery, Anaesthetics, and Obstetrics for rural general practice", Faculty of Rural Medicine.
- Shahabudin S.H.(1995) Postgraduate and Continuing education. The Malaysian Family Medicine trilogy, I, II and III *Annals of Community-Oriented education*, **8**, 95-125
- Tribhuvan University, (1993) "Medical Doctorate in General Practice Curriculum", Institute of Medicine, Kathmandu, Nepal.
- UNZA, (1996) The University of Zambia Calendar 1994 - 1996, 253-255.

WHO, (1981) The role of Hospitals in Primary Health Care Karachi Conference Report, Geneva.

WHO, (1987) Hospitals and Health for all, Technical Report Series 744, GENEVA.

World Organization of Family Doctors (WONCA), (1995) Policy on Training for Rural Practice, 17-20.

## **INFORMED CONSENT FORM.**

### **Career Aspirations of Zambian Medical Graduates Training for District Health Systems.**

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This study involves research to find out the Career Aspirations of Zambian Medical Graduates on Postgraduate hospital based General Practice in Zambia. The information will be collected by responding to the attached questionnaire. Confidentiality of any records identifying the participant will be maintained. However the questionnaire is anonymous. No risks are anticipated. Your views will help in planning for this programme.

Participation is voluntary and that refusal will not involve any penalty or loss of benefit.

**SIGNATURE OF RESPONDENT:.....**

## **TOPICS FOR FOCUS GROUP DISCUSSION.**

- 1. What is/are Zambia's health Needs?**
- 2. The Ministry of health has had problems to send and retain young Zambian doctors in District Hospitals. what could be some of the solutions to this problem?**
- 3. What kind of specialist doctor is appropriate for District hospitals?**
- 4. University of Zambia, School of Medicine in conjunction with Ministry of Health has started a Postgraduate Hospital based GP programme for District Hospital Services. What are your views about this programme?**

**QUESTIONNAIRE**

MPHMEd 1996

Serial Number: \_\_\_\_\_

Any information provided in this questionnaire will be confidential. Please express your views and be honest. We need your help and ideas. Put a cross [X] on the answer you choose in the box provided. Freely and concisely comment where this is required.

---

**1. Category of Respondent**

- |                             |                          |
|-----------------------------|--------------------------|
| 1] Medical Student          | <input type="checkbox"/> |
| 2] Resident Doctor          | <input type="checkbox"/> |
| 3] District Medical Officer | <input type="checkbox"/> |

**2. Age: \_\_\_\_\_ (in years)**

- |                 |                          |
|-----------------|--------------------------|
| 3. Sex: 1] Male | <input type="checkbox"/> |
| 2] Female       | <input type="checkbox"/> |

**4. Marital Status**

- |            |                          |
|------------|--------------------------|
| 1] Single  | <input type="checkbox"/> |
| 2] Married | <input type="checkbox"/> |
| 3] Others  | <input type="checkbox"/> |

- 1] Rural
- 2] City / Town
- 3] Mixture of the above two

6. Which is your field of interest?

- 1] Surgery
- 2] Obstetrics and Gynaecology
- 3] Internal Medicine
- 4] Paediatrics
- 5] General Practice
- 6] Public Health
- 7] Others

7. Which one of the following is a factor in your choice for Question 6 above?

- 1] Family Preference
- 2] <sup>Administration</sup> ~~Administration~~ for the doctor in the specialty
- 3] The needs of the country
- 4] Opportunity for research
- 5] Good financial returns
- 6] Opportunity to travel overseas
- 7] Any others; personal interest, hope for job satisfaction.

8. What is/are Zambia's health needs?

- 1] Overcoming ignorance and poverty alleviation
- 2] Control of communicable diseases
- 3] Good National Health Policies
- 4] Increasing Health Manpower
- 5] Write, if none of the above is: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

9. Where would you prefer to work?

- 1] Primary health Care (PHC) level e.g.   
Urban or Rural Health Centre (RHC)
- 2] Secondary Health Care (SHC) level e.g.   
District General Hospital
- 3] Tertiary (Specialist) Health Care (THC)   
level e.g. Provincial or Central Hospital
- 4] Private Practice

10. Give the reason(s) for your preference: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



11. What would be the long term solution to the problem of staffing in rural areas?

- 1] Financial and material support (incentives)
- 2] Use compulsion
- 3] Postgraduate Vocational Training in Rural Practice
- 4] Improve the status of Rural Doctors

12. Which of the following specialization would be appropriate for district ~~hospital~~ medicine?

- 1] Public health with hospital based General Practice
- 2] General Surgery
- 3] Internal Medicine
- 4] Obstetrics and Gynaecology
- 5] Paediatrics

13. Are you aware of the new 4 year Postgraduate Master of Medicine in District Health Specialist [M.Med (DHS)] Programme which include Master of Public Health in the 1st year, at UNZA School of Medicine?

- 1] I am aware of it
- 2] I am not aware of it

14. If you are aware of it, from where/whom did you get the information?

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15. What is your opinion of this Programme?

- 1] Good for Zambia and supports the Health Reform emphasis on the district
- 2] Not appropriate for Zambia
- 3] It is the same as undergraduate training
- 4] It is just a 'sham' and lacks international credibility and recognition

5. Freely comment if you wish: \_\_\_\_\_

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16. Would you opt for this kind of Postgraduate training?

- 1] Yes I like and would opt for it
- 2] I would not opt for it
- 3] I am not sure

17. Please comment on anything of importance that can contribute to improvement in management and training for District Health Care Systems.

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THANK YOU FOR YOUR CO-OPERATION!

# ANNEX 2

## TOPICS FOR FOCUS GROUP DISCUSSION.

1. What is/are Zambia's health Needs?
2. The Ministry of health has had problems to send and retain young Zambian doctors in District Hospitals. what could be some of the solutions to this problem?
3. What kind of specialist doctor is appropriate for District hospitals?
4. University of Zambia, School of Medicine in conjunction with Ministry of Health has started a Postgraduate Hospital based GP programme for District Hospital Services. What are your views about this programme?

UNZA School of Medicine,  
Department of Community Medicine,  
P.O. Box 50110,  
LUSAKA.

12th November, 1996.

The Dean,  
School of Medicine,  
P.O. Box 50110,  
LUSAKA.

Dear Sir,

RE: PERMISSION TO DO A STUDY AMONG THE 7TH YEAR MEDICAL  
STUDENTS IN YOUR INSTITUTION.

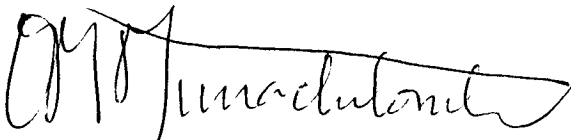
I write to apply for permission to allow me conduct a Cross sectional study among your 7th Year medical students. This is an effort towards the fulfilment of the Masters in Public Health (MPH) part II Dissertation.

Find enclosed the summary of the study and a sample of the questionnaire to be used to collect the information.

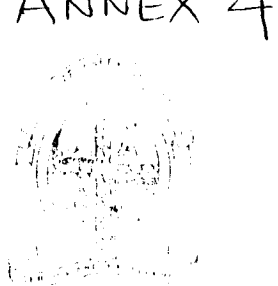
I will be grateful if permission is granted.

Thanking you in anticipation.

Yours faithfully,



O.M. MUNACHITOMBWE. DCMS., B.Sc., MB.ChB.



**THE UNIVERSITY OF ZAMBIA**  
**SCHOOL OF MEDICINE**

Phone: 252641  
(UTH) 254824 (Pre-Clinical) Ridgeway Campus  
Fax: UNZA, LUSAKA  
PO BOX 32373  
LUSAKA ZA 10330  
Tel: 260-1-250753

Department of Paediatric & Child Health  
PO Box 60119  
Lusaka  
Tel: 260-1-250753

21st November 1996

Dr Operance M Munachitombwe  
Dept of Community Medicine  
UTH LUSAKA

Dear Operance

re: VIEWS ON POSTGRADUATE GENERAL PRACTICE TRAINING FOR  
DISTRICT HEALTH SYSTEMS AMONG UNDERGRADUATES AND MEDICAL  
GRADUATES IN ZAMBIA

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This is to inform you that the above proposal was discussed by  
the Research Ethics Committee and you are being advised to  
include the name of the investigator, otherwise the proposal  
was approved.

  
Yours sincerely

E. M. Chomba  
SECRETARY, RESEARCH ETHICS COMMITTEE

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MB The study was approved under the above Title but  
later the title was changed to the present one  
by the Board of Graduate Studies' Recommendation.  
- Mmm

# ANNEX 5

## INFORMED CONSENT FORM.

Career Aspirations of Zambian Medical Graduates; Training for District Health Systems

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This study involves research to find out the Career Aspirations of Zambian Medical Graduates on Postgraduate hospital based General Practice in Zambia. The information will be collected by responding to the attached questionnaire. Confidentiality of any records identifying the participant will be maintained. However the questionnaire is anonymous. No risks are anticipated. Your views will help in planning for this programme.

Participation is voluntary and that refusal will not involve any penalty or loss of benefit

SIGNATURE OF RESPONDENT:.....

UNZA School of Medicine,  
Department of Community Medicine,  
P.O. Box 50110,  
LUSAKA.

12th November, 1996.

The Executive Director,  
Kitwe Central Hospital,  
P.O. Box 20969,  
KITWE.

Dear Sir,

RE: PERMISSION TO DO A STUDY AMONG THE JUNIOR DOCTORS IN YOUR HOSPITAL.

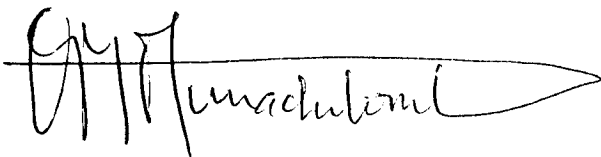
I write to apply for permission to allow me conduct a cross-sectional study among the Junior Doctors in your hospital. This is an effort towards the fulfilment of the Masters in Public Health (MPH) part II Dissertation.

Find enclosed the summary of the study and a sample of the questionnaire to be used to collect the information.

I will be grateful if permission is granted.

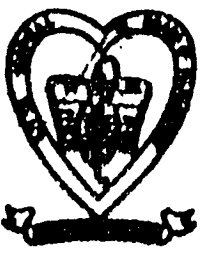
Thanking you in anticipation.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'O.M. Munachitombwe', with a long horizontal flourish extending to the right.

O.M. MUNACHITOMBWE. DCMS., B.Sc., MB.ChB.





# Kitwe Central Hospital

P.O. BOX 20969  
KITWE,  
ZAMBIA

Tel: 228011, 228241, 2  
Telex ZA  
Fax: 228604

Our Ref:MH/MO/5275

Your Ref:

19th November, 1996

Dr. M.O. Munachitombwe  
Unza School of Medicine  
Department of Community Medicine  
P.O. Box 50110  
LUSAKA

Dear Doctor,

## PERMISSION TO DO A STUDY

Thank you for your letter dated 12th November, 1996 seeking permission to do a study among junior Doctors in this Hospital.

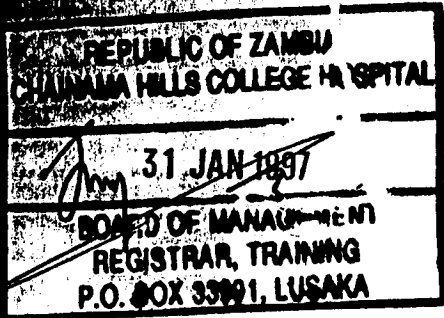
We are pleased to inform you that permission has been granted for you to do the study in liaison with the Chairman of the Resident Doctors Association Dr. Kapatamoyo.

Thank you for the interest shown in the Hospital and wishing you a happy stay as you do your research.

Yours sincerely  
KITWE CENTRAL HOSPITAL

Dr. B. Vwalika  
a/DEPUTY EXECUTIVE DIRECTOR

cc Dr. B. Kapatamoyo  
RDA Chairman



*Approved*  
*Mr J. Mdetwa (BSc)*  
*Facilitate this process in liaison with select students and staff*  
*[Signature]*

Department of Community Medicine  
UNZA School of Medicine  
P.O. Box 50110  
LUSAKA.

31st January, 1997

The Principal,  
Chainama College Of Health Sciences  
P.O. Box 33991  
LUSAKA.

Dear Sir,

RE: PERMISSION TO CONDUCT A FOCUS GROUP DISCUSSION AT YOUR INSTITUTION

I write to request for permission to conduct a focus group discussion at your College with some final year students and lecturers - a group of 10 individuals.

Find enclosed the summary of the research proposal, FGD topics and a letter of permission from the Research Ethical Committee of the University of Zambia.

Thanking you in anticipation.

Yours Faithfully,

Dr. Munachitombwe.  
DCMS, BSc (HB) MB CHB

## ANNEX 6

### LIST OF DISTRICTS WITH MEDICAL OFFICER STAFFING

<u>PROVINCE</u>	<u>DISTRICT</u>	<u>MEDICAL OFFICER</u>
CENTRAL	Chibombo	Zambian
	Kabwe-Urban	Zambian
	Kapiri Mposhi	Zambian
	Mukushi	Zambian
	Mumbwa	Zambian
	Serenje	Expatriate
COPPERBELT	Chililabombwe	Zambian
	Chingola	Zambian
	Kalulushi	Zambian
	Kitwe	Zambian
	Luanshya	Zambian
	Mufulira	Zambian
	Ndola-Rural	Expatriate
Ndola-Urban	Zambian	
EASTERN	Chadiza	No doctor
	Chama	Zambian
	Chipata	Zambian
	Katete	Expatriate
	Lundazi	No doctor
	Nyimba	Expatriate
	Petauke	Zambian
LUAPULA	Kawambwa	Expatriate
	Mansa	Zambian
	Mwense	No doctor
	Nchelenge	Zambian
	Samfya	Zambian
LUSAKA	Chongwe	No doctor
	Kafue	Zambian
	Luangwa	No doctor
	Lusaka-Urban	Zambian

NORTHERN	Chilubi	No doctor
	Chinsali	Zambian
	Isoka	No doctor
	Kaputa	No doctor
	Kasama	Zambian
	Luwingu	Expatriate
	Mbala	Zambian
	<i>Mpika</i>	<i>No doctor</i>
	Mporokoso	Expatriate
Nakonde	No doctor	
NORTH-WESTERN	Kabompo	No doctor
	Kasempa	No doctor
	Mufumbwe	No doctor
	Mwinilunga	Expatriate
	Soiwezi	Zambian
	Zambezi	Zambian
SOUTHERN	Choma	Zambian
	Gwembe	No doctor
	Kalomo	Expatriate
	Livingstone	Zambian
	Mazabuka	Zambian
	Monze	Zambian
	Namwala	No doctor
	Siavonga	Zambian
Sinazongwe	Expatriate	
WESTERN	Kalabo	No doctor
	Kaoma	Expatriate
	Lukulu	Expatriate
	Mongu	Zambian
	Senanga	Expatriate
	Sesheke	No doctor

Source: HRIT'S Financial and Accounting Management Systems (FAMS)

Note.: Expatriate refers to non Zambian not necessarily whites

Annex 1

TABLE 5A

NUMBERS OF STUDENTS AND GRADUATES - MRCHEB DEGREE

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Year 3									42	57	45	44	58	48	
Year 4									39	47	55	40	51		
Year 5									43	42	55	50	39		
Year 6									45	39	52	41			
Year 7															
Graduates	14	19	11	19	24	38	31	28	45	30	23	29	42	39	38
	1988	1989	1990	1991	1992	1993	1994	1995	1996						
Year 3	48	53	34	54	66	54	71	76	70						
Year 4	38	34	34	45	45	51	53	50	52						
Year 5	50	42	34	37	40	42	58	50	48						
Year 6	38	46	41	34	37	40	39	47	49						
Year 7	50	39	46	43	38	37	39	39	45						