

MANAGEMENT EDUCATION FOR THE HEALTH PROFESSIONS IN KENYA:
THE CASE OF THE COLLEGE OF HEALTH SCIENCES,
UNIVERSITY OF NAIROBI

By
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requirement for the M.B.A. Degree, Faculty of Commerce,
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June, 1986

This management project is my original work and has not
been presented for a degree in any other
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This management project has been submitted for
examination with my approval as
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ABSTRACT

As you read this, there are thousands of professional, paramedical and allied health workers - rural midwives, clinical officers, health educators, doctors, nurses, research scientists, and health administrators, to mention a few, who are working with one major goal in mind - the betterment of the health of Kenyans.

The health personnel carry out their task in different working environments - dispensaries, health centres, hospitals, and homes - with varying human, material and financial resources at their disposal. This makes the provision of health services in Kenya today a complex and challenging task, with health manpower playing a crucial role.

It therefore becomes important that special attention is paid to the proper development and utilization of this health manpower. The need for the health practitioner to understand the socio-economic environment within which he practises his skill, is widely accepted. In particular, management education has been identified as one of the answers to some of the problems we face in health-care delivery.

This study considers one of the key health manpower training institutions in Kenya, the Faculty of Medicine of the University of Nairobi. It investigates the state of management education given in the Faculty of Medicine, whose graduates hold important leadership positions in the country's health care system.

The study was undertaken against a background of increasing public concern over the question of standards of Kenya's health care delivery systems. There have been investigative committees formed, repeated questions in parliament, and statements in the press on this subject.

A combination of a case study and experience surveys was used to gain insight into the state of management education at the Faculty of Medicine. Those surveyed included students and lecturers of the Faculty and health practitioners from selected organizations. Non-probability judgemental sampling was used to select the respondents.

The study revealed that the level of management education provided at the College varied with the disciplines of nursing, medicine, pharmacy and dentistry. Relatively speaking, the nursing students received more

lectures on management than the other students. The study also identified lack of time, staff, and teaching materials as the major impediments to providing management education at the College.

The major recommendations made centred around improving management orientation for both the faculty and students. The need for a sound data base in order to initiate any improvements in this area was emphasized.

Table of Contents

	Page
Acknowledgements	(i)
Abstract	(iii)
Table of Contents	(vi)
List of Tables	(x)
List of Figures	(xii)
List of Appendices	(xiii)
List of Abbreviations	(xiv)
Chapter I INTRODUCTION	1
1.1 Management and Development	1
1.2 Management of Health Services	3
1.3 Management and the Health Professions	4
1.4 Objectives of the Study	8
1.5 Significance of the Study	9
1.6 Potential Uses of the Results of this Study	10
1.7 Limitations of the Study	11
1.8 An Overview of the Project Report.	12

	Page
Chapter II THE KENYAN HEALTH CARE SECTOR : AN OVERVIEW	15
2.1 A Brief Historical Perspective	15
2.2 Health Facilities and Services: A Current Perspective	16
2.3 Health Manpower	24
2.4 Health Manpower Training Institutions	27
2.5 Conclusions	30
Chapter III LITERATURE REVIEW	32
3.1 Health Care Management	33
3.2 Hospitals and Management	38
3.3 Medical Education and Management	40
3.4 Conclusions	46
Chapter IV STUDY DESIGN	49
4.1 Method of Data Collection	50
4.2 Sampling Design	53
4.3 Data Analysis and Presentation	57

	Page
Chapter V THE COLLEGE OF HEALTH SCIENCES AND MANAGEMENT EDUCATION	58
5.1 A Synopsis of the College of Health Sciences	59
5.2 Content and Objectives of Management Courses Currently Offered at the College of Health Sciences	61
5.3 Teaching Methods, and Qualifications and Experience of the Faculty.	72
5.4 Views of Students and Lecturers on Management Education given at the College.	74
Chapter VI A SURVEY ON MANAGEMENT REQUIREMENTS FOR HEALTH PERSONNEL IN KENYA	82
6.1 Management Knowledge and Skills and the Health Professions.	82
6.2 Management Courses Required at the Undergraduate Level	86
6.3 Views on Some Other Aspects of Management for Health Personnel.	90

	Page
Chapter VII CONCLUSIONS AND SOME RECOMMENDATIONS	95
7.1 Conclusions	96
7.2 Recommendations for Strengthening Management Education at the College of Health Sciences	102
7.3 Directions for Future Research	105
Notes and References:	
Chapter I	107
Chapter II	109
Chapter III	111
Chapter IV	115
Chapter V	116
Chapter VII	117
Appendices	118
Selected Bibliography:	
Books	205
Articles	207
Reports	208
Miscellaneous Publications	209

List of Tables

Table	Page
1.1 The Management Development Equation	6
2.1 Health Institutions and Hospital Beds and Cots by Province, 1983.	20
2.2 Distribution of Health Facilities in Kenya According to Type and Ownership	21
2.3 Government Health Manpower Levels for Selected Categories, 1972-1982	26
2.4 Registered Medical Personnel, 1984	26
2.5 Health Manpower Training Institutions and Categories	28
3.1 Frequency of Constraints by Area	35
3.2 Impact of Controlling Factors on Hospital Costs	41
4.1 Sources of Primary Data	52
4.2 Types of Questions used According to Form of Response	52
4.3 Sample Size and Response Rate from the College of Health Sciences	55
4.4 Sample Size and Response Rate From Practitioners in Health Organizations.	56
5.1 Some Details of Undergraduate Courses	62
5.2 An Overview of Management Related Courses in Curricula	62
5.3 Management for M.B.Ch.B Students	65
5.4 Management for Diploma in Advanced Nursing Students	70
5.5 Educational and Professional Background of Lecturers Teaching Management Subjects	73
5.6 Adequacy of Time Allocated to Management Courses	80
5.7 Constraints Faced in Providing Management Education: Lecturers' View.	80
6.1 Relevance of Management to the Health Professions	84

	Page	
6.2	When Management Orientation should be Provided	84
6.3	Rating of Necessity for Selected Objectives of Management Education	85
6.4	Need for Students to Receive Lectures From Health Practitioners on Management	85
6.5	Courses in Management Considered to be Very Necessary at the Undergraduate Level	87
6.6	Management Courses Considered not to be Necessary at the Undergraduate Level.	89
6.7	Courses Considered to be Very Necessary, Arranged According to Management Field.	91
6.8	Major Deficiencies in Management Preparation of Medical Graduates of the University of Nairobi.	91
6.9	Constraints in Applying Management Knowledge and Skills	93
6.10	Developments Desired in Management Education Given in the College of Health Sciences.	93
G1	Student Enrolment 1985/86	194
H1	Relative Importance Given to Management Subjects.	197
H2	Rating of Selected Features of Management Subjects	197
H3	Mean Scores on Rating Scale	198
H4	Rating of Necessity of Management Education Objectives.	199
H5	Management Topics.	200

List of Figures

Figure		Page
2.1	Public Expenditure on Health Compared to Expenditure on Education, Culture and Social Services, and Labour	23
3.1	Entry Strategy for Health Service Management Development in Kenya	45
5.1	Rating of Management Subjects vis a vis other Subjects	75
5.2	Combined Student and Lecturer Rating of Management Subjects vis a vis Other Subjects	77
5.3	Mean Scores for Selected Features of Management Courses.	78
G1	Trends in Student Enrolment and Teaching Staff Levels for Selected Years.	195

List of Appendices

Appendix		Page
A	Job Descriptions and Responsibilities for Selected Personnel in a District Health Management Team	118
B	Courses offered at the College of Health Professions, Nairobi	125
C	Questionnaires Used in the Study	127
D	Questionnaires Developed before Pretesting	148
E	Details of Some Management Related Courses Given to Medical Undergraduates	156
F	Details of Some Management Related Courses Given to Nursing Students	172
G	Selected Statistics on the College of Health Sciences	193
H	Data Analysis: Selected Tables and Calculations	196
I	List of Some of the Persons Consulted During the Study	202

List of Abbreviations

AMREF	African Medical Research Foundation
A.S.U	Administrative Support Unit
B.D.S	Bachelor of Dental Surgery
B. Pharm	Bachelor of Pharmacy
B. Sc	Bachelor of Science
CN	Community Nurse
D.D.C	District Development Committee
D.H.M.T	District Health Management Team
EM	Enrolled Midwife
EN	Enrolled Nurse
KEMRI	Kenya Medical Research Institute
KEPI	Kenya Expanded Programme on Immunization
KRN	Kenya Registered Nurse
M.B. Ch. B	Bachelor of Medicine and Bachelor of Surgery
MOH	Medical Officer of Health
M.P.H	Master of Public Health
M.T.C.	Medical Training Centre
WHO	World Health Organization

CHAPTER I

INTRODUCTION

1.1 Management and Development

Seen in retrospect, in almost all developing countries, the lack of implementation capacity, even more than of finance and other capital inputs, has been the critical factor in unfulfilled targets in all sectors of development. Many development strategists and economic planners now advocate managerial resource as a necessary input for all kinds of undertaking [1].

But there is a recognised scarcity of managerial talent in Africa. Adjei [2] underlines this problem when he states that:

Africa has experienced and still continues to experience both qualitative and quantitative deficiencies in managerial resource at all levels.

Managers in this context, include all those who are responsible for organizational planning, implementation, and control (at all levels) both in the private and public sectors.

27 12 11 30

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This under-development of managerial capability therefore becomes a constraint, affecting all sectors of development in a country, including business, industry, education, welfare and health. Thus management education and training for professional personnel at all levels and in all fields of government and private enterprise constitutes a formidable challenge for nations such as Kenya.

Kanani, Maneno and Schluter [3] point out that good health at the individual, community and national level is a prerequisite for optimum productivity and creativity in a country. The health of a nation is affected by many factors [4] among which medical care constitutes an important component.

Health personnel involved in health care delivery systems include physicians, dentists, pharmacists, nurses, public health engineers and a host of paramedical and allied health professions. Among these, doctors and nurses play important leadership and decision making roles, be it at the health centre, dispensary, district or provincial hospital or even at the Ministry of Health itself.

1.2 Management of Health Services

During the 1983/84 financial year, the Kenya Government spent some Kf71.4 million [5] on provision of health services. With so many competing claims on the national budget and obvious limitations in manpower and other capital inputs, it is imperative to ensure that this investment is wisely managed.

Sound management of health services can only be achieved if all the men and women in key positions are knowledgeable not only in their particular professional field (for example medicine or nursing) but also possess managerial capability. Hornby et al [6] stress the fact that skilled manpower is the most important resource which a health service has and Grant [7], points out that a highly skilled specialist in some profession is not ipso facto a good manager.

Deficiencies in Kenya's health services have been a widely debated issue in our local press [8]. Barriers to optimal performance that have been identified include a shortage of doctors, poor maintenance of hospital equipment and facilities, chronic drug shortages, overcrowding of facilities and poor patient-medical personnel relationship, just to name a few.

Some resulting consequences include a reduced quality of medical care, a wastage of financial and other capital inputs, lowered morale among health staff and adverse effects on the quality of teaching given to students in health training institutions, who use public hospitals for their practical work.

Could managerial talent contribute toward solving some of these problems? Kanani et al [9] answer in the affirmative, stating that:

At all levels of the health service system - from the Ministry of Health Headquarters, through the provincial and district level, the Rural Health Unit level, Health Centres and dispensaries - the Ministry faces many constraints. Most constraints are of a non-resource or a managerial nature, or have a managerial aspect (emphasis added).

1.3 Management and the Health Professions

Charnock [10] considers the need of management talent for health delivery as a 'fact of life'. His arguments in support of this stance may be summarised as:

- (a) All members of the medical and nursing professions in health institutions are leaders, sources of influence and decision makers.
- (b) One may not assume that these staff members are aware of their managerial roles.
- (c) Failing to identify themselves as managers in a health system, these professionals are antagonistic to management, which they see as an attempt by the administration to limit their power and independent status.

Thus it is no longer sufficient for example, that a doctor merely be a good diagnostician and therapist. He also requires an understanding of human behaviour and organizational administration.

The question which arises from the above is thus: if management orientation is necessary for health personnel, when and how should it be provided to them? In Table 1.1, p. 6, the various options available are summarized. In very broad terms, such management orientation could be given or obtained together with a student's formal preparation for a health career by post-qualification training, by personal experience in the field or by a combination of these basic approaches.

Table 1.1

The Management Development Equation

Management Development	=	Management Education	+	Management Training	+	Management Experience
When is it provided?		During vocational training for a health profession		After completion of vocational training		After completion of vocational training
How is it provided?		via formal management courses in health profession curriculum		via workshops, training courses, symposia		from practical work experience

The World Health Organization (WHO) [11] suggests that management orientation for health personnel should be given very early in the formal education for the professions. But Gunaratne [12] and Miller [13] point out that management is often a neglected area in medical school undergraduate curricula, despite its importance. This assertion may be borne out by an examination of the course contents of medical school curricula appearing in various foreign university calendars [14].

In Kenya, the College of Health Sciences of the University of Nairobi is the only degree awarding health training institution in the country. The graduates (doctors and nurses) of this College often find themselves in positions of authority and responsibility in the country's various health institutions. It would thus be of interest to find out what kind of management education [15] is being given to the students of the College of Health Sciences.

1.4 Objectives of the Study

The primary purpose of this study is to explore the current status of management education given at the undergraduate level in the College of Health Sciences, University of Nairobi. It attempts to identify what is being done in these management programmes, to pinpoint some problem areas and finally, to compare what is offered with what health practitioners feel is required.

Specifically, the objectives of this study are four-fold:

- (1) To describe current management related programmes offered to students at the College of Health Sciences in terms of content, objectives, teaching methods, and qualifications and experience of the faculty
- (2) To identify some of the problems encountered by students and lecturers at the College in the provision of management courses
- (3) To ascertain from the faculty and among selected persons in the health care field as to what kind of management preparation is required for graduates from the College of Health Sciences

- (4) To suggest ways of improving management education at the College of Health Sciences by comparing what is currently offered in the management courses with what the faculty and health practitioners feel should be provided.

1.5 Significance of the Study

There is a great concern in Kenya about health care. Doctors are few and difficult to see, particularly for people in the rural areas. Long queues form at outpatient clinics and there is general dissatisfaction with the health delivery system [16].

This study will hopefully help increase awareness on how management education and practice in the Kenyan health industry might contribute toward improving health care delivery. This is especially important as more people with a medical background are appointed to managerial positions, many times without prior training and experience in the field of management [17].

Therefore medical science knowledge alone is not sufficient for students in medical training institutions. In the exercise of their profession, the graduates from these institutions will to a large extent be working with human material in organizational settings.

As health organizations have grown in scale and thus become increasingly governed by external economic, political and social considerations, the case for enlarging the health professionals' horizons has become correspondingly important. Management education could contribute to making the health professional conscious of the broad social, economic and political responsibilities attached to his professional role.

1.6 Potential Uses of the Results of this Study

This study lays the ground work for the collection of relevant information which can be used to examine and develop the undergraduate management courses and curricula offered at the College of Health Sciences.

Other health training institutions in Kenya, for example the College of Health Professions, Nairobi, which trains paramedical personnel, who in the rural areas often substitute for doctors, would also find the results of this study to be of interest. In particular, the management orientation required by health personnel, identified in this study, could serve as a basis for reviewing the institution's management related programs.

Finally, this study can serve as a model for and provide an impetus to an overall evaluation of curricula of other professional courses - for example engineering and education - in terms of management content.

1 .7 Limitations of the Study

While this study will propose some ways to make management education for medical students more relevant to the needs of society, it does not offer a complete model for future management curricula.

The management needs for doctors and nurses have been identified by interviewing health personnel in Nairobi. On the other hand, many health care delivery units - dispensaries, health centres - are situated in the rural areas of Kenya. No attempt has been made in this study to determine if the management orientation required for health personnel working in the rural areas is significantly different from those working in urban centres.

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This study concerns itself solely with the management education needs of the medical and nursing professions. This is in no way a reflection on the need for management education for other categories of health staff, particularly the paramedical personnel. While some of the points made here would in broad terms be equally valid for paramedical staff, their unique status in health care delivery in Kenya requires a specific study to determine their management education requirements.

In essence, the choice was made to provide an overview of the management orientation needs for graduates of the College of Health Sciences and to suggest areas for further research rather than examine any one management aspect in detail.

1.8 An Overview of the Project Report

This management project report consists of seven chapters. The first chapter discusses the aims and objectives of the study, after having shown the importance and need for management education for personnel involved in health care delivery systems. The significance and limitations of the study are also discussed in this chapter.

The second chapter provides an overview of the Kenyan health industry in terms of related organizations, personnel and training institutions. The objective here is to put the management requirements of health personnel in Kenya into perspective.

The selected literature review presented in Chapter Three is aimed at determining the importance of management education and training for health personnel. The need for such management orientation as a prerequisite for an effective and efficient health care delivery system is outlined.

Chapter Four describes the research design employed in this study. It covers the methods used for collecting data, the research instruments utilized and the sampling plan adopted in accordance with the objectives of the study. The data analysis techniques used are also described here.

The fifth chapter, after giving an overview of the College of Health Sciences, describes various aspects of management courses given to students at the College. It begins with a description of the management courses and course outlines and also indicates the teaching methods used. It also provides an insight into some of the problems encountered by the students and faculty in the provision of management education.

The results of the survey of management related needs for graduates of the College of Health Sciences is given in Chapter Six. The survey was carried out on selected persons from various health related organizations.

The final section of the report, Chapter Seven, contains the conclusions of the study together with some recommendations for developing the management content of the curricula offered by the College of Health Sciences. In conclusion, some suggestions are proposed regarding further research into management education for the health professions in Kenya.

CHAPTER II

THE KENYAN HEALTH CARE SECTOR : AN OVERVIEW

The objective of this chapter is to provide a broad outline of the health care industry in Kenya. Such an overview would help put into perspective the management problems related to health care delivery faced by health personnel in Kenya.

2.1 A Brief Historical Perspective

Traditional medical practitioners from the various tribes in Kenya were the precursors of Western medicine in Kenya. With the advent of colonization, "modern" medicine and health services were introduced into the country [1].

The role of the Catholic and Protestant missions in promoting health care and providing medical services was crucial in the years immediately following 1890 [2]. It was only later that the colonial government began involving itself in the provision of health services to the Kenyan population.

Cooperation between the missions and the colonial government was formalised by various agreements between the two parties, although development of the two medical bodies remained separate until the time of independence [3].

The provision of health services in the early years were mainly a response to medical emergencies such as outbreaks of plague or malaria. Public health activities such as mass immunizations were also a common feature. The setting up of the dispensary system to provide health care also had its origins during this period [4].

After the First World War, training of Kenyans as hospital assistants, compounders and health workers intensified. But it was not until 1950, when Makerere University in Uganda started a medical degree course, that an important stride was made in training Kenyans to man the health services [5].

Already towards the end of the colonial period in Kenya, the stage was set for the stress on two major areas with regard to future health care delivery in the country [6]:

- (1) Preventive health care, and
- (2) The extension of health services in the rural areas

This new policy contrasted with the previous one which focused on curative medicine, based largely on hospitals.

2.2 Health Facilities and Services: A Current Perspective

Since independence, the health system in Kenya has evolved to accommodate rising expectations among the

population with respect to health care. These expectations have to be met within the context of an expanding population, rapid developments in medical science and technology, and rising costs of providing health care.

The District Focus Policy which became officially operational on 1st July 1983 is aimed at a collective and integrated approach to development. Its unique feature is that it addresses itself to local needs. In keeping with this policy, the Ministry of Health's target is to make essential health services [7] accessible to the 85 per cent of the Kenyan population living in the rural areas. At present only 30 per cent of the Kenyan population live within 2 kilometres of the nearest health unit [8].

The geographical distribution of health facilities by provinces is shown in Table 2.1, p.20 .In 1970, the central government took over from the rural local authorities the responsibility for providing basic health services to about 90 per cent of the country's population [9].

The roles and responsibilities of the Ministry of Health may be summarised as follows [10]:

- (1) Setting and maintaining the medical and health standards of the nation and issuing corresponding directives.

- (2) Administering and maintaining all central government medical and health services.
- (3) Assisting private health organizations with financial subsidies and administrative and technical advice.
- (4) Engaging in training, research and investigation and formulating health and medical development plans.

In the rural areas for example, the Ministry operates a network of approximately 1,277 governmental health facilities (hospitals, health centres and dispensaries) [11]. In addition, preventive services especially immunization are mainly delivered through periodic mass mobile operations [12].

In keeping with the District Focus Policy, the health services in each district of Kenya are the responsibility of the District Health Management Team (D.H.M.T.) [13]. This team, is made up of various categories of health personnel, including doctors, nurses, nutritionists and health educators. The specific responsibilities of a D.H.M.T. include the following (14):

- (1) Planning and managing health services within the district
- (2) Providing support, training and supplies for the efficient working of health personnel
- (3) Integrating health services within the district
- (4) Consulting and liaising with people in the district who are involved in related development fields such as politics
- (5) Initiating and maintaining special health care services such as immunization campaigns.

The health services provided in many areas of the country are supplemented by local authorities, church missions, industrial health institutions and a substantial private sector, particularly in the major urban centres. The distribution of health facilities according to ownership and type is shown in Table 2.2, p.21 .It covers the period 1965 to 1984.

Table 2.1

Health Institutions and Hospital Beds and Cots by Province, 1983

Province	Health Institutions			Hospital Bed and Cots		
	Hospitals	Health Centres	Health Sub Centres and Dispensaries	Total	No. of Beds and Cots	No. per 100,000 Population
Nairobi	17	7	71	95	5,598	534
Coast	25	27	138	190	2,930	181
Eastern	31	41	191	263	3,882	118
North Eastern	3	6	21	30	366	79
Central	43	45	207	295	4,512	160
Rift Valley	50	79	377	506	5,212	132
Nyanza	31	49	161	241	4,066	120
Western	16	34	47	97	2,728	125
Total 1983	216	288	1,213	1,717	29,294	156

Table 2.2

Distribution of Health Facilities In Kenya According to Type and Ownership.

	1965	1975	1980	1984
A. <u>Dispensaries/sub-health centres</u>				
Government	540	693	648	1,032
Mission	197	221	227	176
Private	74	110	122	-
Sub-total	811	1,024	997	2,205
B. <u>Health Centres</u>				
Government	153	167	182	245
Mission*	3	22	28	72
Private	1	1	-	-
Sub-total	157	190	210	317
C. <u>Hospitals</u>				
Government:				
- district/sub-district	53	68	72	75
- provincial	7	7	7	7
- national	1	1	1	1
- specialised	6	6	6	6
Mission*	96	94	94	94
Private**	37	37	42	44
Sub-total	200	212	222	227

* Increase in mission health centres and corresponding decline in mission hospitals is explained by change in the classification of mission hospitals to health centres.

** Private hospitals include maternity and nursing homes and company hospitals.

Source: Adapted from Karabu, M: "Work of The Nyeri District Health Management Team". Unpublished dissertation, Faculty of Medicine, University of Nairobi, 1985, p.4.

Aid is also received from international agencies toward developing the health sector in Kenya. Such agencies include the World Health Organization, and the United Nations Development Program. The aid provided includes donations of supplies, equipment, vehicles and also training facilities for health personnel [15].

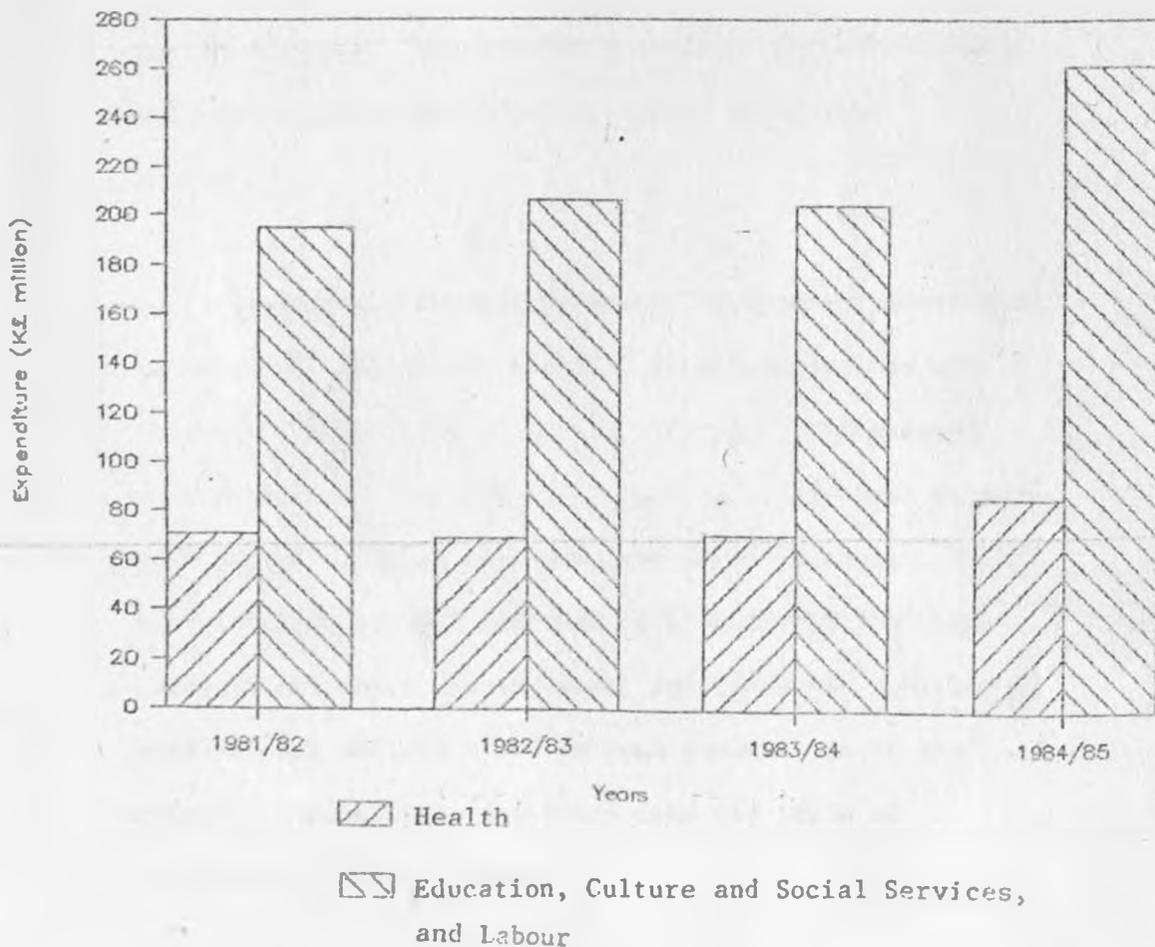
Table 2.2 indicates that approximately 50 per cent of the health facilities listed are operated by the government. Thus public expenditure on health is a significant sum.

Fig. 2.1, p.23, shows government recurrent and development expenditure on health over the last four financial years. The expenditure on health shows no wide variation between 1981/82 to 1984/85. Currently, the Ministry of Health accounts for 9 per cent of recurrent expenditure of all ministries. There are plans to decrease this share gradually over the next three years to 8 per cent [16].

The largest single item of recurrent expenditure in the health services is on personnel. It accounts for over 60 per cent of the total annual costs incurred in providing the wide ranging facilities available to the general public [17]. This underscores the labour intensive nature of the health industry. In 1982 for example, the total number of workers in the health sector was estimated to be 30,752 [18].

Fig. 2.1

Public Expenditure On Health Compared To Education, Culture and Social Services and Labour Expenditure.



(Figures include both recurrent and development expenditure)

Source: Expenditure figures extracted from the Economic Survey 1985, Ministry of Finance and Planning, Kenya

2.3 Health/Manpower

The Kenyan health services are manned by a wide variety of professional, technical and auxiliary health staff. The Professional health staff consist of doctors, dentists and pharmacists. The nursing profession includes Kenyan Registered Nurses and Enrolled Nurses among other categories.

The term paramedical refers to occupations whose work is organised around the tasks of curative medicine and ultimately controlled by the authority of professional medical staff. The tasks performed by paramedical workers, for example clinical officers, are meant to assist, rather than directly replace the work of a doctor in the focal tasks of diagnosis and therapy. But given the scarcity of professional medical staff in some rural areas of the country, paramedicals sometimes take the place of professional medical staff.

The focus on preventive and promotive health care has also given rise to a new cadre of community health workers. These include health education, environmental health nutrition, maternal and child health workers [19]. Over the years since independence, there has been a continuous increase in the number of health workers in the public and private sectors. Table 2.3, p.26 , shows the changes in government health manpower levels for selected categories between 1972 and 1982.

Skilled manpower in the health service is the most difficult resource to control and utilise over a long period of time to the best advantage of health care in the country [20]. In Kenya, this problem is further aggravated by a shortage of skilled manpower to serve the population. Table 2.4 p.26, shows the ratios of various categories of health personnel to every 100,000 people, for 1984.

In addition to numbers, quality of health manpower is another important consideration. The quality of the role that health personnel play in Kenya's development, is shaped to a large extent by the quality of education that is imparted to them in the country's health care training institutions.

Table 2.3

Government Health Manpower Levels for Selected Categories, 1972-1982.

Category	1972	1982
Doctors	350	385
Dentists	14	79
Registered Nurses	723	2,347
EN/CN/EM*	2,410	7,697
Clinical Officers	546	1,251
Public Health Officers	111	374
Pharmacists	19	86
Pharmaceutical Technicians	125	304
Laboratory Technicians	319	807

* EN = Enrolled Nurse, EM = Enrolled Midwives, CN = Community Nurse

Source: Kenya, Republic of : Official Handbook, 1983, pp.195 - 196.

Table 2.4

Registered Medical Personnel, 1984

	Number	Number per 100,000
Doctors	2,591	13.26
Dentists	331	1.69
Pharmacists	131	0.69
Pharmaceutical Technologists	427	2.18
Registered Nurses	9,165	46.91
Enrolled Nurses	10,650	54.51
Clinical Officers	2,001	10.24

Source: Statistical Abstract, 1984, p.196.

2.4 Health Manpower Training Institutions

Training facilities for health manpower in Kenya are operated by both government and non-government agencies. In Table 2.5, p.28, the distribution of training institutions among these different agencies is shown. It covers only selected health profession specializations.

The table indicates that the government runs about 65 per cent of the health training institutions, for the specialities listed.

The three major health manpower training institutions in the country are The College of Health Sciences, University of Nairobi, the College of Health Professions (formerly known as the Medical Training Centre, Nairobi), and the Kenyatta National Hospital.

The College of Health Sciences, University of Nairobi, is currently the only degree awarding health training institution in the country. It offers courses in Medicine, Dentistry and Pharmacy both at the undergraduate and postgraduate level. It also offers a diploma course in Advanced Nursing [21].

Table 2.5

Health Manpower Training Institutions and Categories

Specialty	Agency				Total
	Central Govt	Local Govt	Mission	Private	
Clinical Medicine	2	-	-	-	2
Environmental Health	9	-	-	-	9
Education, Development, Research	1	-	-	-	1
Medical Laboratory Technology	7	-	3	-	10
Nursing	16	2	16	2	36
Pharmacy	1	-	-	-	1
Dental Technology	1	-	-	-	1
Occupational Therapy	1	-	-	-	1
Orthopaedic Technology	1	-	-	-	1
Physiotherapy	1	-	-	-	1
Radiography	1	-	-	-	1
Family Health Field Education	1	-	-	-	1
Nutrition	1	-	-	-	1
TOTAL	43	2	19	2	66

Source: Kenya, Republic of : Official Handbook, 1983, p.196

The Ministry of Health runs the College of Health Professions in Nairobi. There are also sister institutions at the provincial level. Diplomas and certificates are awarded for a wide range of courses [22] ranging from Clinical Medicine to Education Development and Research.

The Kenyatta Hospital is the teaching hospital for the College of Health Sciences. The College of Health Professions of the Ministry of Health also uses Kenyatta National Hospital for the practical training of their students. The key role played by the hospital is underlined by the Kenya Medical Association [23], which states:

The hospital has a major role in training of medical and paramedical personnel. Doctors, dentists, pharmacists, nurses (of all cadres), clinical officers (of all cadres) physiotherapists, orthopaedic and dental technicians (among others) are all trained at the hospital. Postgraduate training in several branches of medicine deserves special mention.

Other provincial, district and private hospitals also run training programmes for various categories of community health workers [24].

Training in research in the health field is done both at the University of Nairobi and the Ministry of Health. The Kenya Medical Research Institute (KEMRI) operates under the Ministry of Health and co-ordinates medical and health related research. It also acts as the scientific advisor to the government on health matters [25].

In training health personnel, the institutions in the country attempt to emphasize local conditions. The need to choose methods to suit whatever resources are available is stressed. For example, the department of Pharmacy in the College of Health Sciences is undertaking research into potential uses of traditional herbal medicines in Kenya on a wider scale.

2.5 Conclusions

The provision of health care in Kenya is a complex and challenging task. Some constraints identified by the government include [26]:

- (1) Shortage of medical manpower as a result of inadequate training facilities and personnel
- (2) Shortage of drugs and other supplies due to financial limitations and an inefficient distribution system
- (3) The concentration of most of the available medical personnel in urban centres
- (4) Inadequate and uneven coverage of the population
- (5) Inadequate collection and flow of health information and inadequate utilization of the little information collected.

In addition to the above constraints, lack of management expertise has already been mentioned

In spite of these constraints, major strides have been made in health care in Kenya. For example, between 1973 and 1983, life expectancy of Kenyans increased by 10 per cent, while infant mortality dropped by 30 per cent [27]. Also, auxiliary health personnel and paramedical staff have been successfully utilized to contribute both to the quantitative and qualitative delivery of health care.

Probably, the greatest challenge facing health care delivery in Kenya into the year 2000, is to maintain and improve health services while government expenditure in this area is gradually reduced [28]. The government's Sessional Paper no.1 of 1986 outlines a very specific way of meeting this challenge [29]:

To effect a reduction in the budgetary share of expenditures on health, a working party under the Ministry of Health, will study and make recommendations to the government on methods of reducing costs through improved management of health facilities and the health care system (emphasis added).

A method of implementing this strategy is to ensure that management education given in the health care training institutions is both relevant and adequate.

CHAPTER III

LITERATURE REVIEW

During the review of the pertinent literature, the author did not come across any published critical studies on the role of management education in health training institutions. The objective of this literature review will therefore be to determine the importance of management orientation for health personnel, as a prerequisite for an effective and efficient health care delivery system.

In this literature review, material on health service management is drawn from both the industrialized and developing countries. Emphasis will be placed on experiences in the field of health care management in developing countries. In particular, wherever possible references will be made to health care management issues related to Kenya.

The literature on health management reveals various terms which are used to describe the management process and the elements of the management process. Such terms include 'administration', 'controlling', 'directing others' and 'exercising leadership and control'. Thus, to accommodate this wide variation in terminology, the broad definition of the management process as "the use of people and other resources to accomplish objectives", of Boone and Kurtz [1], will be adopted.

3.1 Health Care Management

Management requirements in the health services can be best understood if one first considers the objectives of health care. These objectives, based on the expectations of the consumers of health services, and as stated by the World Health Organization are [2]:

- (1) Protection of health
- (2) Restoration of disturbed health
- (3) Assistance in rehabilitation
- (4) Alleviation of suffering where health cannot be restored.

Developing nations are experimenting on new ways of delivering adequate health care to their mainly rural population. The WHO set goal of 'health for all by the year 2000' [3] has provided further momentum to search for more effective and efficient ways of health delivery, given the resource constraints faced by these nations.

A widely accepted policy in the field of health care in developing nations is related to the concept of preventive health care [4]. Adoption of a policy is a first step. Implementation of the policy may many times be a hurdle. In reference to the policy of preventive health care, Nsekela and Nhonoli [5] point out that:

Acceptance and adoption of policy is not enough, it is only the first stage. A gigantic task lies ahead to translate it into action, into fact, into an efficient and effective health care delivery system.

Constraints affecting implementation of health programmes are both of a material resource and non-material resource nature. These include shortage of staff, shortage of supplies, shortage of facilities and equipment and managerial deficiencies.

In 1971 a multistage sampling method was used by a WHO group, who studied health centre and dispensary facilities staffing and operations throughout Kenya. The objective was to carry out a constraint analysis to identify rural health dysfunctions [6].

A summary of the findings is given in Table 3.1, p.35 [7]. The constraints refer to the area they relate to: technology (medical and health techniques); staff (numbers, training, expertise, attitudes); facilities (number, design, adequacy, equipment, vehicles, material); procedures (administrative and operating, scheduling, assignment, referral, supply, budgeting and fiscal); policy (governmental and health); other (environmental, cultural) [8].

The results show that in only one area - facilities - were material/physical resource constraints more frequent than managerial or non-material resource constraints. The study concluded that much can be done to improve health services with existing material and physical resources. Managerial input is one strategy to achieve this.

Table 3.1

Frequency of Constraints by Area

Nature/Area	Technology	Staff	Facilities	Procedure	Policy	Other	Total
A. Material/ Physical resource	11	28	34	2	-	-	15
B. Managerial other non- material resource	28	48	13	73	23	13	199
C. Total	39	76	47	75	24	13	274
Row B (%) Row C	71.8	63.2	27.7	97.3	100	100	72.6

Source: Adapted from Kanani et al: Health Service Management (Vol I)
(Nairobi, MOH & AMREF), 1984, p.(xii)

Brown [9] explicitly underlines the importance of managerial resource for health delivery when he states that:

Much of the failure of health care delivery can be attributed to a managerial deficit. The reasons for this are many e.g. the process by which a system is implemented in the health care field is more political and social than technical.

Davis [10] supports this view, pointing out further that when a social function such as health care is institutionalised, management occupies a secondary function which may conflict with the primary purpose of the institution.

But Harrison [11], while agreeing on the prominence of the management function in any organizational setting, sees no conflict between management and organizational goals. With particular reference to health institutions he points out that [12]:

Management and the organization are, for all practical purposes, synonymous; to consider one without the other is meaningless. Without management there is no organized activity, and without the organization there is nothing to manage.

Thus management is essential if the different elements of the health care and health manpower components are to function effectively and efficiently together.

While it would be unrealistic to expect that all management positions in health institutions become the exclusive domain of those who are professionally trained for such positions [13], the WHO points out that "many senior health professionals are conscripted into managerial roles without prior training" [14].

The management activities required of health professionals holding managerial responsibility are broadly identified as [15]:

- (1) Diagnosing present and anticipated problems
- (2) Assessing significance of problems so as to define aims and objectives in relation to them
- (3) Finding alternative means for meeting objectives, examining them, and making rational choices between them
- (4) Obtaining the resources (material, human and financial) necessary for implementation
- (5) Defining tasks of organizations and groups or individuals so as to make the best use of available skills
- (6) Development of personnel and enlargement of skills and capabilities
- (7) Motivating people to accept objectives and to work toward them
- (8) Monitoring, control and evaluation so as to adapt and learn in the light of experience.

Stated in such broad terms, these management activities would essentially be the same for health care considered at the national level or at the hospital and dispensary level.

The literature reveals some debate on how management knowledge and techniques, traditionally connected with industry and commerce, can be related to the health field.

Mofidi [16], considers the traditional management attributes of leadership, responsibility, drive and enthusiasm very relevant to health care systems. At the same time, the need to adapt certain management concepts (which had their origin in non-health fields) to suit the health sector, is recognised by certain authors [17].

This latter view, is based on a distinction drawn between management of health and industrial sectors. Among the characteristics identified as unique to the health sector are the nature of the object being managed - the health of an individual - which makes it an intimate and emotion filled area, and the difficulty of placing a monetary value on health [18].

Some work has been done along the lines of adopting management techniques to the health sector. Examples include use of operation research techniques for control of epidemics and evaluating effectiveness of health programs [19]. Among the various health service institutions, hospitals have been instrumental in the development of management for health care [20].

3.2 Hospitals and Management

A hospital holds a unique position in the health services of a nation. Gatherer and Warren [21] describe it as "the powerhouse of the health services" and as "an institution of professional stimulus and refreshment".

In similar vein, Llewelyn-Davies and Macaulay [22] describe a hospital as:

...an integral part of a social and medical organization, the function of which is to provide for the population complete health care, both curative and preventive and whose out-patient services reach out to the family and its home environment; the hospital is also a centre for the training of health workers and for biosocial research.

Management related research in hospitals tends to focus on the role of hospital administrators. Such studies include those of Forsyth and Thomas [23], Goldsmith [24], Phillips [25], Schulz and Johnson [26] and Wasyluka [27]. The hospital administrator's key role in integrating unskilled and semi-skilled workers, technical specialists and professionals into a synergistic framework in order to achieve the hospital's objectives, is a constant point of reference in the above mentioned studies.

The literature reveals no agreement as to whether the administrative head of a hospital should have a medical qualification or not [28]. But whatever his background, sound managerial theory and skills are considered to be essential. Schulz and Johnson point out that management of a hospital is a team effort [29]. Thus, in addition to the hospital administrator, physicians, nurses and other health professionals play important managerial roles in a hospital.

Decision-making roles of health professionals for example, have a direct impact on the financial management of hospitals. Young and Saltman [30] studied the impact of controlling forces on hospital costs in the United States. Their findings are summarised in Table 3.2. p. 41.

These results show the large influence which a physician's decisions on medical treatment of patients have on hospital costs. Young and Saltman suggest both educational mechanisms (management training and education) and financial mechanisms (bonuses) as methods of making physicians more aware of the cost implications of their decisions [31]. This again underlines the need of management orientation for health professionals working in hospitals.

3.3 Medical Education and Management

The literature on medical education asserts that [32]:-

... in most if not all the developing countries, (medical education) generally follows the so called Flexnerian model, where compartmentalized specialized departments in various branches of the medical sciences impart education to a medical graduate.

This education is largely geared toward providing graduates with the scientific and clinical knowledge and skills required to treat patients.

Table 3.2

Impact of Controlling factors on Hospital Costs

Cost influencing variables	Key Control Factor			
	A	B	C	D
Case mix	1	2	3	3
Number of cases	1	2	2	3
Mode of treatment	4	1	3	3
Input unit price	2	4	2	3
Input efficiency	3	3	1	3

KEY

Control Factors

A = Environment

B = Physicians

C = Administrators

D = Third party payers

Degree of Impact

1 = much

2 = some

3 = little

4 = none

Source: Adapted with modifications from Young and Saltman "Preventive Medicine for Hospital Costs" Harvard Business Review, 62,1, p.128.

As Thorr [33] points out, training in many professions tends to be "isolated and self contained". This emphasis on independence of a profession prevents it from benefiting from other areas of knowledge. Further, the stress on individual independence in the training of doctors "is not conducive to team work and team decision-making" [34].

Medical education is considered to be a significant investment in time and money [35]. Thus it is not surprising that periodic re-examination of medical curricula is recommended [36]. Another reason for periodic reviewing of programmes for training medical personnel is given by the WHO [37], which states:

The social goal of health manpower development is to serve health programmes and service needs. When these have been defined, a totally new look has to be taken at existing ways of training health personnel, and new ways created wherever necessary...this is the most dramatic and urgent challenge facing the development of health systems in this (Africa) region.

The working conditions experienced by medical graduates would also influence medical education. Gunaratne, for example, proposes a "strong dose of social relevance and social imagination in education and training for all health professions" [38]. Hanlon considers an understanding of the principles of organization, government and law by health professionals as essential [39]. With specific reference to conditions in Kenya, Migue states that [40]:

For the medical practitioner, the implication is that among his duties, the roles as teacher, initiator, planner, administrator and supervisor are stressed....

The case for a broader medical curricula is also supported by Mungai [41] who considers that the development of the concept of a health team in health care delivery should be reflected in medical education.

The need to include management courses in medical curricula receives wide support in the literature. Barrows, with reference to medical practice, underlines this need when he indicates that [42]:

Questions of efficiency (in terms of cost and time) and effectiveness (in terms of maintenance or actual improvement of health) are now being added to the traditional criteria of command of scientific knowledge and ability to demonstrate sophistication in diagnosis.

Gunaratne [43] considers training in organization and leadership for all categories of health professions as essential. The WHO points out the need for management orientation for all categories of health staff:

With increasing quantitative and qualitative demands on health services... managing the health resources becomes more complicated and the use of efficient and effective management techniques becomes indispensable to enable personnel working at all levels of the health system to make better decisions.[44]

The WHO proposes further that management appreciation courses should be included in all undergraduate health training curricula and more specialised management courses be offered at the postgraduate level [45].

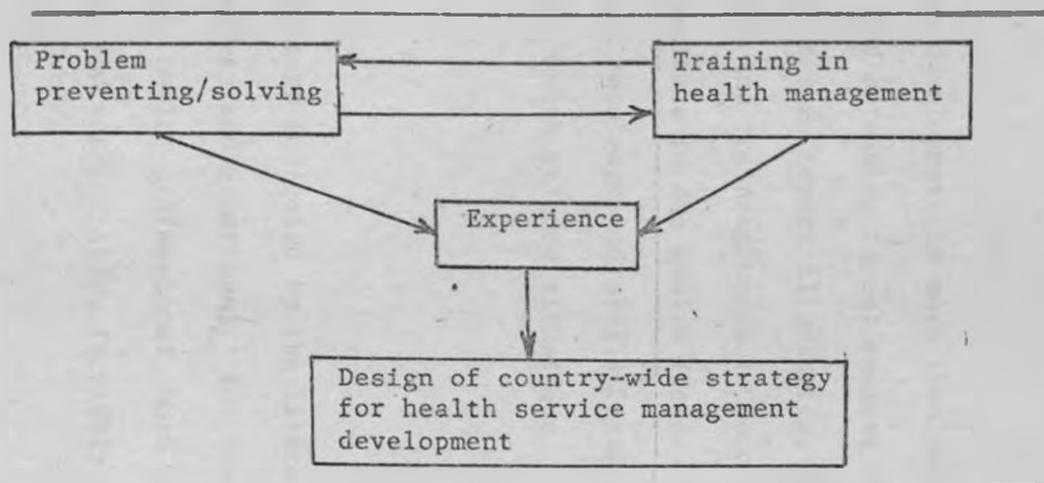
In Kenya, efforts have been made towards the development of a national health service management strategy. Kanani et al [46] consider management development in the health services as a long-term undertaking. In Fig. 3.1 p.45 an outline of their proposed strategy is given.

The starting point for such a strategy involves a series of problem preventing/solving activities at the District and sub-District level. These activities are to be supplemented by selected management training. Based on this experience a national strategy for health service management development can be drawn up.

The Kenyan Ministry of Health also runs an Administrative Support Unit (ASU). This unit provides health management consultancy services to provincial and district health institutions. Some activities of this unit have included the designing of management systems for drug supplies, and attempts to strengthen managerial performance of health management teams, and management of hospital outpatient services [47].

Fig. 3.1

Entry Strategy For
Health Service Management Development in Kenya



Source: Kanani et al : Health Service Management (Vol I).
(Nairobi: Ministry of Health and AMREF), 1984, p.xiii.

Coggeshall [48] advocates closer cooperation between the faculties of medicine and other university disciplines to improve medical education. He points out that:

Medical schools in their university settings are in close relationship with a number of other disciplines such as economics, business administration...They are in a position to coordinate these disciplines toward the objective of improved delivery of health services.

But management development is more than acquiring management skills and attending formal courses [49]. As Table 1.1 (p. 6) of this report illustrates, basic management education and training needs to be complemented with practical experience in the health field. This should allow the management knowledge and skills learned to be applied in specific health related situations.

3.4 Conclusions

The overall picture indicated by the literature in this field is one of variety and experiment. But the relevance of management to the health professional, both in his vocational training and working life, is widely accepted.

The importance of management education for the health professions as reported in the literature may be summarised as follows:

(1) For day-to-day work, background knowledge and skills from management are needed by health professionals for:

(a) specific medical problems requiring knowledge of human behavioural sciences

(b) working as a member of a health team.

(2) Health professionals increasingly find themselves working in large organizations as part of an integrated administrative hierarchy. As a result they need to develop some understanding of administrative skills for their own protection and advancement, and also to appreciate interaction between organizations in a system.

The process of adapting management techniques to health problems is a relatively undeveloped area [50], and therefore there is little experience on which to base content of management courses for medical education. Further, management research results in the health field are very much related to prevailing socio-economic and cultural conditions. This raises the issue of transferability of experiences from one country to another [51].

Finally, the fact that management education is only a portion of the total management development process cannot be over-emphasized. At the same time, management education for the health professions will help to remove or reduce some of the managerial problems faced in health delivery systems.

CHAPTER IV

STUDY DESIGN

An exploratory case study design was selected in order to gain further insight into the area of management education for the health professions in Kenya. The case study was supplemented by experience surveys to identify the management knowledge and skills required of graduates from health manpower training institutions. The combination of analyses of selected cases and experience surveys has proven useful in obtaining valuable perspectives on phenomenon [1].

The College of Health Sciences, University of Nairobi, was chosen for the case study for the following reasons:

- (1) The graduates of this College often find themselves in positions of authority and responsibility in health care organizations soon after completing their formal training [2]. This is particularly the case for those graduates who go into public service.

(2) As this College is the only degree awarding health manpower training institution in the country, its graduates working in health care organizations are responsible for both the clinical and management aspects of the work of other categories of health care personnel [3], and

(3) As far as the author is aware, there is no published work of a similar study done on the College of Health Sciences.

The data for this study was collected during the months of April and May 1986.

4.1 Method of Data Collection

Both primary and secondary data were used in this study. Secondary data on management courses offered at the College [4] was obtained from syllabi and course outlines of the departments concerned. The information provided in these course outlines was checked with the chairmen of the departments for accuracy and currency. This check proved to be very useful, as two departments, because of some problems [5], did not offer the published management courses during the current academic year.

Primary data on various aspects of management education (Table 4.1, p. 52) was obtained by carrying out experience surveys on lecturers at the College of Health Sciences, students at the College, and health practitioners from selected health related organizations.

The primary data was collected using structured-undisguised questionnaires. Three different questionnaires [6] were designed, one each for the students of the College of Health Sciences, the lecturers of the College and practitioners in health related organisations. The various types of questions used in each of the questionnaires is summarized in Table 4.2, p.52 .

The material from the literature review and preliminary informal interviews with health personnel were used as a basis to formulate the initial set of questions. The final format of the questionnaires and the content and phrasing of the questions, was developed after pretesting the questionnaires. Pretesting of the questionnaires was done by personal interviews with respondents drawn from among students and lecturers from the College of Health Sciences, and from administrative staff of health care institutions [7].

Table 4.1

Sources of Primary Data.

Data on:	Persons interviewed
(1) Qualifications and experience of lecturers teaching management courses at the College	Lecturers taking management courses
(2) Problems faced in providing management courses at the College	Lecturers and students of the College of Health Sciences
(3) Management knowledge and skills required of graduates of the College	practitioners from health related organisations and College lecturers

Table 4.2

Types of Questions used According to Form of Response

Questionnaire	Type of question			
	Open ended	Di-chotomous	Multi-chotomous	Scaling
For Faculty Students	*	*	*	*
For Faculty teaching staff	*	*	*	
For practitioners in health organizations	*	*	*	

* indicates type of question used

Combinations of different methods of administering the questionnaires were used. The questionnaires for the students were self-administered. In the case of practitioners in health organizations, an initial personal interview was conducted after which the questionnaire was left to be completed for later pickup. For the faculty teaching staff, the questionnaires were in some cases exclusively self-administered and in others the self-administered questionnaire was supplemented by a personal interview. During the personal interviews, supplementary questions were asked to allow coverage of aspects not explicitly raised in the questionnaire, but which were relevant to the study.

4.2 Sampling Design

Nonprobability judgemental sampling was used to select both the health organizations approached in the survey and the individuals from these organizations. The initial selection was done by the author in consultation with his supervisor and the Principal of the College of Health Sciences. The sample units were selected for their expected contribution in offering a perspective on management education for the health professions.

The initial sample of practitioners in health organizations got larger as participants identified still other possible respondents. These additional respondents were included in the sample if two conditions were satisfied - that they were identified by more than one of the initial participants and, that the time constraints allowed it [8].

Nonprobability judgemental sampling was also used to select the lecturers in the College of Health Sciences. The author, in consultation with the Principal of the College sent the questionnaires to all Chairmen of departments. If a chairman of a department indicated that another member of his staff might provide useful insights for the study, additional questionnaires were provided.

Convenience sampling was used to select the students from the College of Health Sciences. The sample and response rates for respondents from the College of Health Sciences is shown in Table 4.3, p. 55, while that for practitioners in health organizations is given in Table 4.4, p. 56. In all cases, disproportionate quota sampling was used to establish the total number of persons to be interviewed in each category within the various samples.

Table 4.3

Sample Size and Response Rate From the College of Health Sciences.

	Sample Size	Response (Rate %)
Students		
a) M.B.Ch.B	24	14 (58.3)
b) Dip. Advanced Nursing	6	6 (100)
Total	30	20 (66.7)
Lecturers	25	19 (76)

Table 4.4

Sample Size and Response Rate from Practitioners in Health Organizations

Category of health practitioners	Sample size	Response rate (%)
<u>a) Graduates completing internship at Kenyatta Hospital</u>		
. Medical Interns	5	5
. Nurses	5	5
<u>b) Officials of Professional Associations</u>		
. Kenya Medical Association	1	-
. Kenya Dental Association	1	1
. Pharmaceutical Society of Kenya	1	1
. National Nurses Association	1	1
<u>c) Administrators of Health Care Institutions</u>		
. Kenyatta National Hospital	1	1
. Aga Khan Hospital, Nairobi	1	1
. Kiambu District Hospital	1	-
. University of Nairobi Health Services	1	1
<u>d) Officials of other Health Related organizations</u>		
. Ministry of Health	1	-
. World Health Organization	1	1
. African Medical Research Foundation	1	1
. Kenya Medical Research Institute	1	1
. Nursing Council of Kenya	1	1
. Medical Practitioners and Dentists Board	1	-
TOTAL	24	20(83.3)

4.3 Data Analysis and Presentation

The primary data collected was analysed by calculating percentage frequency distributions for the various alternative responses available for the dichotomous and multichotomous questions. For the open-ended questions, similar responses per question were grouped and their percentage frequency distributions calculated.

Mean scores were calculated as a measure of central tendency, for responses to scaling type questions. The secondary data collected on the content of management courses offered at the College was analysed according to the management related topics covered, and the category of students to which the course was taught, that is, M.B.Ch.B, B.D.S, B.Pharm or Diploma students.

Various forms of data presentation were used to highlight patterns in responses according to the different sample groups. These included one-way tabulations, bar charts and pie-charts.

CHAPTER V

THE COLLEGE OF HEALTH SCIENCES AND MANAGEMENT EDUCATION

Health manpower training consists of producing manpower with the right knowledge, skills and attitudes to effectively perform health service functions in a country's health care system. All forms of health care depend upon a body of trained health personnel as the most important resource input [1].

If one considers two particular categories of health manpower - doctors and nurses - one finds a wide debate as to their proper roles. Gunaratne [2] identifies four skills and related roles of a doctor in a developing country, which may be summarised as:-

- (1) Competence in the field of clinical medicine in order to treat patients-
- (2) Competence in diagnosing ills of a community using appropriate epidemiological tools, environmental control and health education.
- (3) Competence in administration, organization and coordination in order to play a leadership role in the context of community health.

- (4) Competence in health education in order to promote primary health care.

Rowbottom [3] divides the nursing profession into two main groups. There are the technical nurses who perform routine clinical activities and the professional nurses who assume educational, administrative and more complex clinical responsibilities. These expected roles of health personnel form an important basis for the design of curricula in health manpower training institutions.

5.1 A Synopsis of the College of Health Sciences

At present, the College of Health Sciences consists of a single Faculty, the Faculty of Medicine which was started in July 1967 [4]. The Department of Advanced Nursing started in 1969 while the Departments of Pharmacy and Dental Surgery had their first intake of students in 1974 [5].

The undergraduate courses of study offered by the Faculty lead to the award of degrees of Bachelor of Medicine and Bachelor of Surgery (M.B.Ch.B), Bachelor of Science in Anatomy (B.Sc.), Bachelor of Dental Surgery (B.D.S.) and Bachelor of Pharmacy (B.Pharm). The department of Advanced Nursing runs a two year course leading to a diploma award.

The approximate annual intake for the undergraduate courses and the duration of these courses is shown in Table 5.1 p. 62. Currently, there are about 200 members making up the academic staff and a student population (undergraduate and postgraduate) of about 970 [6].

Postgraduate training given at the College includes specialist (Master of Medicine) three year courses [7] and there are research facilities for Master of Science, Doctor of Philosophy and Doctor of Medicine. In addition, the department of Community Health offers a two year course leading to the award of Master of Public Health (M.P.H.), which has a lot of emphasis on health services management.

The College of Health Sciences has strong affiliations with Kenyatta National Hospital, which is the main teaching hospital for the Faculty of Medicine, for both undergraduate and postgraduate students. Many joint research programmes are also carried out with the various divisions of the Kenya Medical Research Institute (KEMRI).

The curricula for the various courses are constantly under review in order to meet the development requirements of Kenya's health services. The introduction of management related courses in the curricula is in example of attempts to relate course structures to the health service needs of the country.

There are plans to develop the Department of Pharmacy and the Department of Dentistry into independent Faculties, consisting of four and two departments respectively [8]. Lack of finance and teaching staff are the main hurdles facing this development. A Bachelor of Science programme is also planned to replace the diploma course in the department of Advanced Nursing. [9].

The revision of syllabi, which will accompany these new developments in the College of Health Sciences, provides a good opportunity to introduce management related courses at all levels. The Kenyan Ministry of Health has specifically requested the College to strengthen management education at the undergraduate level [10].

5.2 Content and Objectives of Management Courses Currently Offered at the College of Health Sciences.

The management courses described here include both formal management courses such as Health Services Administration [11] and courses related to management such as statistics [12]. Table 5.2 p.62 provides an overview of the management courses given to various categories of students at the College. It shows a fairly wide variation in the number of courses given and their spread throughout the period of study.

Table 5.1
Some Details of Undergraduate Courses.

Degree/Diploma Course	Approximate intake per year	Course Duration (yrs)
M.B.Ch.B	100	5
B.D.S.	25	4
B.Pharm	30	4
Diploma in Advanced Nursing	25	2

Table 5.2
An Overview of Management Related Courses in Curricula

Category of Students	Year of Study				
	I	II	III	IV	V
M.B.Ch.B.	* *	* *		*	
B.Pharm		* *		*	
B.D.S.				*	
Dip. Advanced Nursing	*	* *			

* indicates number of courses

5.2.1 Management for M.B.Ch.B. Students

For students preparing for the M.B.Ch.B. degree, the major objectives of the undergraduate management related programmes are to assist in producing a doctor who will be able to [13]:-

- (1) Describe the organization and management of a district hospital.
- (2) Plan, implement and evaluate control programmes
- (3) Work with and supervise the paramedical staff as the team leader.
- (4) Initiate, organize, participate in, and evaluate training programmes for paramedical staff.
- (5) Describe the organizational structure of the health services (both government and non-government) in Kenya, including staffing patterns of the various health facilities and the government health plan.

In line with these objectives, management related courses are given to the students in the first, second and fourth years of their study. Table 5.3 p.65 shows the individual management related courses taught, their duration and an outline of the content of each course. The teaching methods employed in each case are also indicated.

The objective of the Behavioural Science course is to expose the students to sociological theories which are relevant to their duties on qualification. Formal organizations are studied and emphasis is on a hospital as a formal organization and comparisons between formal and informal groups.

The Statistics course in the first year and second year and the field survey course in the second year is designed to provide the students with the necessary tools for carrying out health-related surveys. Fieldwork requiring use of statistical tools is done in the fourth year of study.

The Occupational Health course is aimed at enabling the students to recognise health hazards in a given working environment and also to introduce them to the procedures employed in a factory inspection for health and safety purposes.

Table 5.3

Management for M.B.Ch.B. Students

Year of study	Course title	Duration	Outline of course content	Teaching method
I	Behavioural Science in Medical Sociology	20 hrs	<ul style="list-style-type: none"> . Theories of personality . Human motivation and emotion . Doctor-patient communication . Conflict and adjustment . Formal organizations and bureaucracy 	. Lectures
I	Introduction to Biostatistics	30 hrs	<ul style="list-style-type: none"> . Populations and samples . Sampling methods . Presentation of data . Summarization of data . Introduction to probability 	. Lectures
II	Biostatistics	10 hrs	<ul style="list-style-type: none"> . Revision . Statistical estimation . Statistical inference . Introduction to correlation and regression analysis 	. Lectures
II	Health Services Management	20 hrs	<ul style="list-style-type: none"> . Introduction to management and management theories . Management functions . Health Team concept . Health policy and development in Kenya . Role of Medical Officer of Health 	. Lectures

Table 5.3 (cont.)

Year of Study	Course title	Duration	Outline of course content	Teaching method
II	Occupational Health	10 hrs	<ul style="list-style-type: none"> . Industrial pollution . Occupational health hazards . Principles of occupational diseases 	<ul style="list-style-type: none"> . Lectures . Visits to industry
II	Introduction to field Surveys	6 hrs	<ul style="list-style-type: none"> . Introduction to fieldwork . Design of questionnaires . Interview techniques . Data analysis and presentation 	<ul style="list-style-type: none"> . Lectures . Fieldwork
IV	Clerkship in community health	12 weeks	<ul style="list-style-type: none"> . Management of rural health facilities . Supervision of rural health management team . Social-economic factors affecting community health . Urban and industrial health services 	<ul style="list-style-type: none"> . Lectures . Fieldwork . Seminars . Attachment to health centre
IV	Health Services Management	10 hrs	<ul style="list-style-type: none"> . Revision of 2nd year work 	<ul style="list-style-type: none"> . Lectures

The Health Services Administration course done in the second and fourth year covers largely the principles of management. The Clerkship in Community Health course in the fourth year provides field experience which emphasizes the application of these principles by demonstrating the practical management activities involved in health care.

Additional details of the above mentioned courses for M.B.Ch.B. students are provided in Appendix E, p.156. In the various clinical subjects the students do, such as medicine and surgery, aspects of patient management are emphasized. This involves the planning, organizing and evaluating of both diagnosis and therapy for patients suffering from specific ailments.

5.2.2. Management for B.Pharm and B.D.S. Students

The Pharmacy students do the course in statistics together with the Medicine students in the first year of study. In their third and fourth year, the B. Pharm syllabus includes a course in Pharmaceutical Management which is at present mainly practical oriented.

Students spend four weeks visiting pharmaceutical industries, observing production and management aspects (including marketing) in these industries. For another four weeks the students are attached to a hospital pharmacy. This gives them first hand experience in management aspects such as administrative matters and stock control.

Dentistry students have a course entitled Practice Management in their final year. In this course practising dentists are invited to give informal lectures on management aspects of operating a dental practice.

5.2.3. Management for Diploma in Advanced Nursing Students

The nursing process involves assessing, planning, implementing, and evaluating patient care as its principal elements. A hospital ward nurse is also involved in functional management: planning, organizing, communicating, directing, controlling and coordinating.

With this in mind, the syllabus for the Diploma in Advanced Nursing is broad based so as to prepare well rounded professional nurses with the necessary teaching and administrative skills to assume leadership positions in the health care field. The diplomates from this programme usually take up positions as tutors in the country's schools of nursing, ward managers in public and private hospitals, and as officials in the Ministry of Health, involved in manpower planning and training activities [14].

Management related courses are given both in the first and second (final) year of study for the diploma programme. Table 5.4,p.70 gives an overview of these courses. Further details on content and objectives of the courses are given in Appendix F, p.172.

The course in Theory and Application of Nursing Concepts given in the first year of study focuses on the role of the nurse as a professional practitioner. Particular emphasis is placed on the planning, implementation and evaluation of nursing interventions in meeting needs and solving problems.

In the Community Health Nursing II course, emphasis is placed on the nurse's responsibility in assisting to establish a community diagnosis and in planning, organizing, coordinating and supervising the work of other members in the health team.

The Administration of Nursing in Health Services and Schools of Nursing course is directed towards the understanding of the underlying principles of administration with particular emphasis on their application to the health care field. The interrelatedness of teaching and administrative functions in nursing is underlined in administrative related research projects assigned during the course.

In addition to the above mentioned courses, the lecturers in the department attempt to instil a management attitude in all the other clinical and educational courses offered [15] in the diploma programme.

Table 5.4
Management for Diploma in Advanced Nursing Students

Year of Study	Course title	Duration	Outline of course content	Teaching methods
I	Theory and Application of Nursing Concepts	260 hrs	<ul style="list-style-type: none"> . Man as an open system . Community health services . Role of a nurse and other health workers in health care . Communication skills . Nursing process . Problem solving methods 	<ul style="list-style-type: none"> . Lectures (60 hr) . Practice (200 hr)
II	Community Health Nursing II		<ul style="list-style-type: none"> . Development of public health and systems of community health care . Models of community organization and community health teams . KEPI* principles and services and mid-level KEPI management . Organization & management of community health nursing 	<ul style="list-style-type: none"> . Lectures (60hrs) . discussions . project assignments/ . observation visits . 3 week practical attachment to a rural health unit.

* KEPI = Kenya Expanded Programme on Immunization.

Table 5.4 (Cont.)

Year of Study	Course title	Duration	Outline of courses content	Teaching method
II	Administration of Nursing Services and Schools of Nursing	180 hrs	<ul style="list-style-type: none">. Management theories. Bureaucracy/rationality. Social systems approach. Decision theories. Theory and concepts in management. Human behaviour in organizations. Management in health care organizations. Management process applied to nursing management at executive, middle level, and operational level.	<ul style="list-style-type: none">. Lectures (60 hr). Discussions. Observation visits. Mini-research projects

5.3. Teaching Methods, and Qualifications and Experience of the Faculty

A variety of teaching methods are used in imparting management related knowledge and skills at the College of Health Sciences. The major teaching technique is the lecture, as Table 5.3, p. 65 and Table 5.4, p. 70 indicate. The lecture method is in most cases supplemented by exposing the students to practical situations which require the application of management principles.

The combination of the lecture and practice methods is used extensively for the M.B.Ch.B. and Diploma in Advanced Nursing students. In addition, the nursing students are expected to contribute to class discussions on management matters and also to make class presentations on management topics. Currently the Pharmacy and Dentistry students do not receive any lectures on management.

A summary of the educational background and working experience of lecturers taking the management courses at the College of Health Sciences is given in Table 5.5, p.73 .It should be noted that the background of the lecturers relate to those teaching the specified subjects during the 1985/86 academic year. In addition to the academic staff who give formal lectures on management topics, other members of staff are involved in supervising the students during their administrative practicum. The background of these staff members have not been considered.

Table 5.5

Educational and Professional Background of Lecturers Teaching Management Subjects

Course	Educational qualification of lecturer		Non-teaching working experience of lecturer	
	Health	Management	Health services Management	Business/public (non-Health) sector Management
1. Behavioural Science	YES	NO	YES	NO
2. Biostatistics	NO	NO	YES	NO
3. Health Services Management and Occupational Health	YES	NO	YES	NO
4. Theory and Application of Nursing concepts	YES	NO	YES	NO
5. Community Health Nursing II	YES	YES	YES	NO
6. Administration of Nursing Services and schools of Nursing	YES	YES	YES	NO

The lecturers considered in Table 5.5 all belong to the Faculty of Medicine. In addition to these, the department of Advanced Nursing also makes use of part-time services of management lecturers from the Faculty of Commerce. These part-time lecturers, who currently are two in number, have qualifications and working experience in business management as opposed to health services management. But one of them has had over ten years experience in teaching the Principles of Management course to the nursing students. -

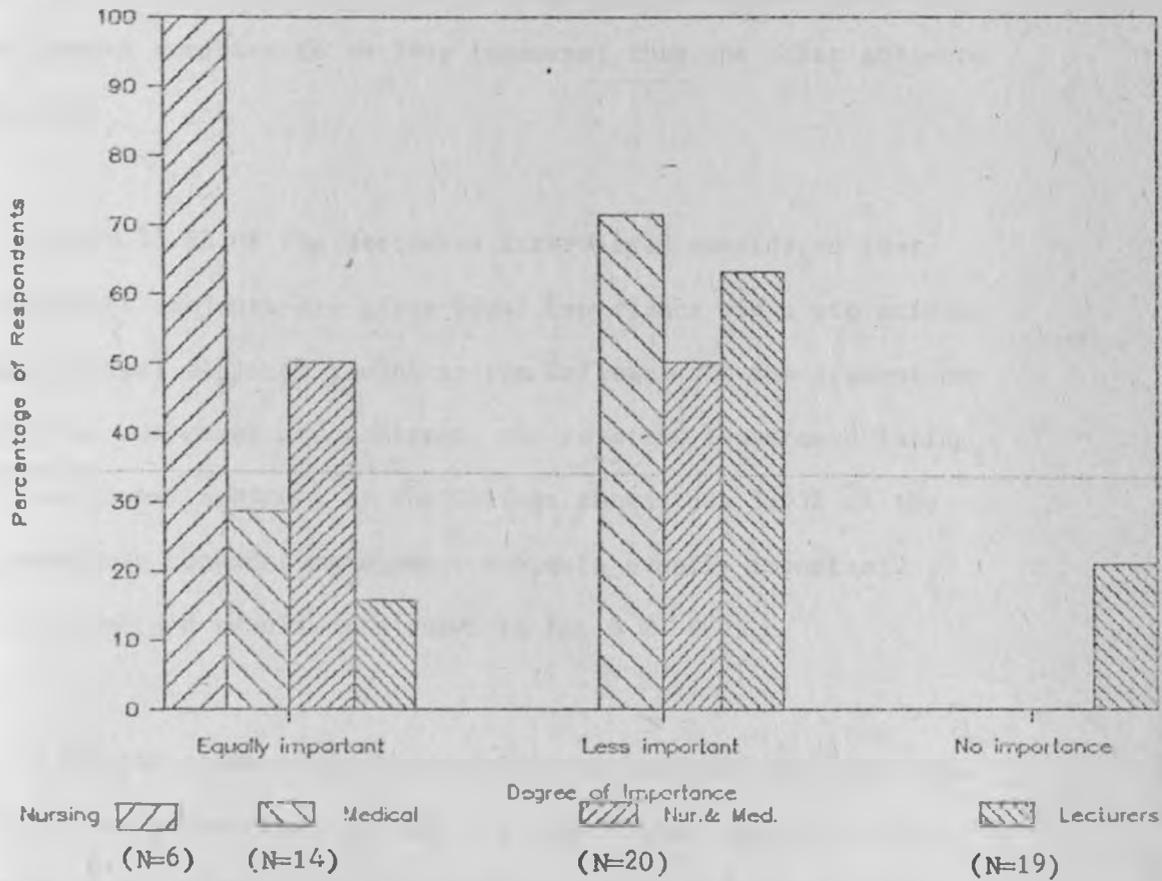
The four lecturers teaching management subjects 3,4,5 and 6 (see Table 5.5) stated when interviewed that formal lectures are supplemented with talks by practitioners on management aspects. While they all try to emphasize local conditions and constraints in the management courses, no attempt has been made to date to formally evaluate the effectiveness of these management courses.

5.4 Views of Students and Lecturers on Management Education given at the College.

The importance given in the faculty to management subjects vis a vis other clinical and science subjects is shown in Fig. 5.1, p.75 [16].

Fig. 5.1

Rating of Management Subjects vis a vis Other Subjects



All the nursing students interviewed rated management subjects equally important with clinical and science subjects. Only 28.6% of the medicine students rated management subjects on par with other subjects with respect to importance. When combined, 50% of the College students interviewed gave equal importance to management subjects while the remainder considered management subjects to be less important than the other subjects studied.

Only 15.8% of the lecturers interviewed considered that management subjects are given equal importance vis a vis science and clinical subjects taught at the College. If the student and lecturer responses are combined, the relative importance rating of management subjects at the College shows that 33.3% of the respondents consider management subjects equally important. These combined results are shown in Fig 5.2 p.77.

All the students in the sample were aware of the objectives of the management courses they had done. When asked to state their reaction on a negative-positive scale to selected aspects of the management courses they had done, there was a marked difference between the responses obtained from the sample of nursing students and the sample of medical students. Fig 5.3 on p.78 shows the mean scores of each sample group on a rating scale, for selected features of the management courses [17].

Fig. 5.2

Combined Student and Lecturer Rating of Importance
of Management Subjects vis a vis Other Subjects (N=39)

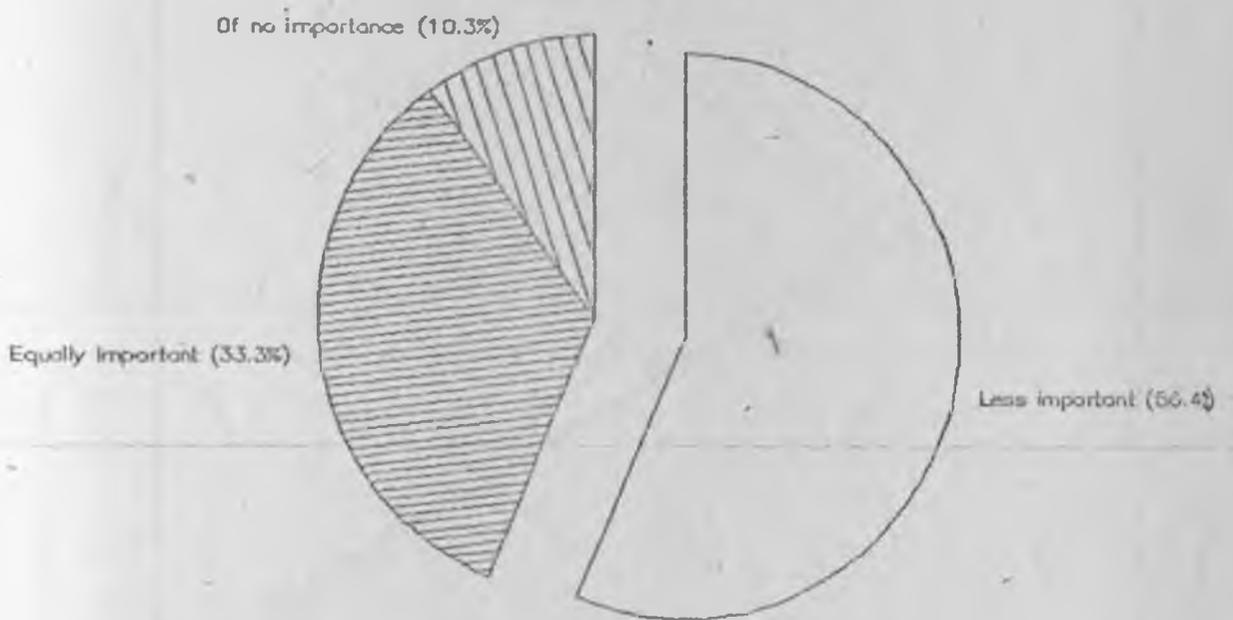
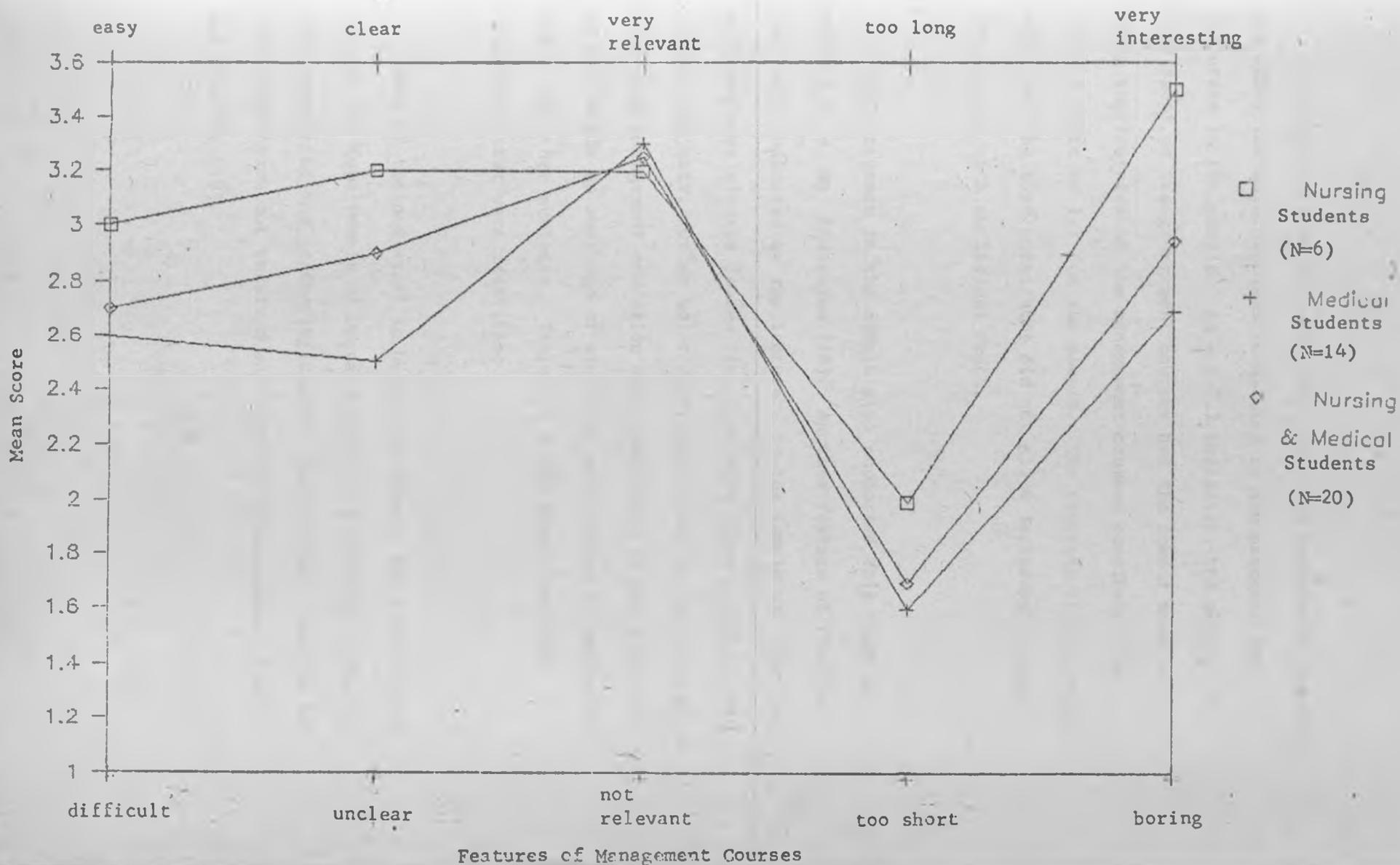


Fig 5.3

Mean Scores for Selected Features of Management Courses



Shortage of time to adequately cover the management courses was among the main problems identified by the students and lecturers in the sample. As Fig 5.3 indicates, the amount of time spent on the management courses had the lowest mean score among the features of the management courses considered - an overall score of 1.7 for the sample. The students in the sample felt that the time constraint did not allow lecturers to cover the courses with sufficient depth.

The lecturers in the sample also supported this view as Table 5.6, p. 80 indicates [18]. Another feature of the time constraint indicated by the lecturers in the sample was that the students were already loaded time-wise with other clinical and science subjects. Other major constraints faced by the college in providing management education were identified by the lecturers in the sample as shortage of staff and poor rating of management vis a vis other subjects. Table 5.7 P. 80 summarises the constraints that were identified.

Lack of trained staff in health management was particularly felt in the departments of Dental Surgery and Pharmacy. Due to this constraint the graduating classes this academic year in both departments have not received any lectures on management theory and practice [19].

Table 5.6
Adequacy of Time Allocated to Management Courses
(N=16)

Response	% of respondents
Too little	75
About right	25
Too much	-
TOTAL	100

Table 5.7
Constraints Faced in Providing Management Education -
Lecturers' View
(N=19)

Constraint	% of respondents
. Students already loaded time wise	73.7
. Poor rating of management as a subject	57.9
. Lack of relevant teaching material	52.6
. Shortage of trained staff	47.4

Other problems identified by the students in the sample were too much reliance on the lecture method for teaching the management courses and lack of books and journals on health services management in the College Library. In particular, 71.4% of the medicine students in the sample felt that teaching methods using case studies and class discussions should be given more emphasis in their management courses. Lack of published material on health services management was identified as a problem by 80% of the student respondents.

CHAPTER VI

A SURVEY ON MANAGEMENT REQUIREMENTS FOR HEALTH PERSONNEL IN KENYA

The results of this survey are based on views of two categories of respondents: lecturers at the College of Health Sciences, University of Nairobi, and selected health practitioners from Nairobi. The results are presented so as to give an overall view by combining the responses from the two categories and to contrast the views of the two groups of respondents so as to emphasize any differences.

6.1 Management Knowledge and Skills and the Health Professions

All the respondents in the samples considered the acquisition of management knowledge and skills to be at least relevant to the health professions. A higher proportion of lecturers (79%) than practitioners (60%) in the sample, considered management to be very relevant to the health professions. Table 6.1 p.84 summarizes these responses.

As regards the time when management knowledge and skills should be provided to health personnel, the majority of the respondents, both among the lecturers (73.7%) and practitioners (100%), were of the opinion that management education should be given both during the period of formal education in the health professions and by post qualification training. As Table 6.2, p.84 indicates, 26.3% of the lecturers in the sample felt that this management orientation should be given only during the post-qualification training period for the professions.

Both the lecturers and practitioners in the samples indicated that management education for health personnel should have wide objectives, as Table 6.3 p. 85 shows. Further details of the responses rating the necessity of selected objectives in management education are given in Appendix H, p. 196 .

In addition, all the practitioners in the sample felt that the management courses should emphasize local situations, applications and constraints. They further indicated that inviting practitioners from health care organizations to speak to the students on management aspects was necessary (as Table 6.4 p. 85 indicates) for this emphasis to be provided.

Table 6.1
Relevance of Management to the Health Professions

	Response (%)		TOTAL (%)
	relevant	very relevant	
Lecturers (N=19)	21	79	100
Practitioners (N=20)	40	60	100
Lecturers and Practitioners (N=39)	30.8	60.2	100

Table 6.2
When Management Orientation Should be Provided

Respondents	Response (%)		TOTAL (%)
	during formal education and post qualification training	only during post qualification training	
Lecturers (N=19)	73.7	26.3	100
Practitioners (N=20)	100	-	100
Lecturers and Practitioners (N=39)	87.2	12.8	100

Table 6.3
Rating of Necessity for Selected Objectives of
Management Education.

Objective	% of total respondents (N=39) rating objective as necessary or very necessary
1. Develop analytical skills	100
2. Improve problem solving/ decision making capability	100
3. Broaden intellectual base	89.7
4. Develop specific attitudes	87.2

Table 6.4
Need for Students to Receive Lectures from Health
Practitioners on Management.

Response	% of respondents (N=20)
Very necessary	55
Necessary	45
TOTAL	100

6.2 Management Courses Required at the Undergraduate Level

. In Appendix G, p. 193 , Table H5 contains a summary of the responses from lecturers and practitioners, on the necessity of specified management courses at the undergraduate level, at the College of Health Sciences. Table 6.5, p. 87 , shows a list of topics in management which the lecturers and practitioners in the sample considered to be very necessary for the undergraduate curriculum at the College.

As most of the management topics listed in the questionnaires elicited at least a "necessary" response, some information can be gained by considering those courses which obtained a "not necessary" response from the lecturers or the practitioners. Table 6.6, p. 89 provides such an analysis. It lists management topics which either the lecturers or the practitioners in the sample considered not to be necessary in the undergraduate curricula. Most of the topics listed in Table 6.6 fall under financial or administrative management.

Table 6.5
 Courses in Management Considered to be Very Necessary
 at the Undergraduate Level.

% of respondents	Courses considered very necessary		
	Lecturers (N=19)	Practitioners (N=20)	Lecturers and Practitioners combined (N=39)
70 to 90	<ul style="list-style-type: none"> . national health policy . structure and functions of Ministry of Health . supervision . public relations 	<ul style="list-style-type: none"> . health institution strategy and planning . management of emergencies 	<ul style="list-style-type: none"> . structure and functions of Ministry of Health
50 to below 70	<ul style="list-style-type: none"> . health institution strategy and planning . organizational and Management structure . financial control . health and safety at work . group dynamics and team work . behavioural sciences . delegation . management of emergencies 	<ul style="list-style-type: none"> . national health policy . structure and functions of Ministry of Health 	<ul style="list-style-type: none"> . national health policy . health institution strategy and planning . organizational and management structure . management of emergencies . public relations

Table 6.5 (Cont.)

Courses considered very necessary			
% of respondents	Lecturers (N=19)	Practitioners (N=20)	Lecturers and Practitioners combined (N=39)
40 to below 50	<ul style="list-style-type: none"> . image, climate and communications . project management . organizations and environment . budgeting: institutional and national . administrative staffing and control . management and staff development and training . use of committees . statistical analysis 	<ul style="list-style-type: none"> . organiza-tional and management structure . office organization, administra-tion and systems . health and safety at work . public relations . stock control . transport management 	<ul style="list-style-type: none"> . budgeting: institu-tional and national . financial control . office organization and sytems . health and safety at work . behavioural sciences . group dynamics and team work . supervision . delegation

Table 6.6
Management Courses Considered not to be Necessary at
the Undergraduate Level.

% of respondents	Courses considered as not necessary		
	Lecturers (N=19)	Practitioners (N=20)	Lecturers and Practitioners Combined (N=39)
50 to 55		<ul style="list-style-type: none"> . management accounting . asset management 	
40 to below 50		<ul style="list-style-type: none"> . treasury, financial control . office layout and equipment . search, selection and recruitment 	<ul style="list-style-type: none"> . management accounting
30 to below 40	<ul style="list-style-type: none"> . management accounting . investment planning and appraisal . treasury financial control 	<ul style="list-style-type: none"> . investment planning and appraisal . office productivity 	<ul style="list-style-type: none"> . investment planning and appraisal . treasury financial control . office layout and equipment . asset management

The results shown in Table 6.5 can be further summarized as indicated in Table 6.7. p.91 Here major fields of management are listed together with related topics. Forty per cent or more of the respondents among lecturers or practitioners felt that undergraduates at the College should receive at least a basic appreciation course in these areas of management.

It should be noted that the respondents were not required to state the depth in which these various management areas should be studied. The results only indicate that the respondents consider that at least a basic appreciation course in the areas mentioned is necessary.

6.3 Views on Some Other Aspects of Management for Health Personnel

Of the practitioners in the sample, 85% had occasion to work with graduates from the Faculty of Medicine of the University of Nairobi. The major deficiencies in management preparation of these graduates were identified by the respondents as a lack of sufficient interpersonal and communication skills and an inability to work as members of a health team (see Table 6.8, p. 91).

Table 6.7

Courses Considered to be Very Necessary, Arranged
According to Management Field

A. <u>POLICY AND DEVELOPMENT</u>	C. <u>FINANCIAL MANAGEMENT</u>
<ul style="list-style-type: none">. national health policy. structure and functions of the Ministry of Health. health institution strategy and planning. image, climate and communications in organizations. organizational and management structure. project management. organizations and environment	<ul style="list-style-type: none">. financial control. budgeting:<ul style="list-style-type: none">institutional and national
B. <u>ADMINISTRATION</u>	D. <u>HUMAN RESOURCES MANAGEMENT</u>
<ul style="list-style-type: none">. office organization, administration and systems. health and safety at work	<ul style="list-style-type: none">. supervision. group dynamics/team work. behavioural sciences. delegation. use of committees
	E. <u>MANAGEMENT SCIENCES</u>
	<ul style="list-style-type: none">. statistical analysis
	F. <u>OTHERS</u>
	<ul style="list-style-type: none">. public relations. stock control. transport management. management of emergencies

Table 6.8

Major Deficiencies in Management Preparation of Medical
Graduates from University of Nairobi

Area of deficiency	% of respondents (N=19)
<ul style="list-style-type: none">. Personnel management	70.6
<ul style="list-style-type: none">. Management theory	47.1
<ul style="list-style-type: none">. Team work	29.4

The health practitioners in the sample considered excessive bureaucracy and superiors in health services without adequate management background, to be the major constraints faced by Kenyan health personnel in implementing their management knowledge and skills. Table 6.9 p. 93 lists these and other constraints identified by the respondents.

Regarding the future developments in management education given at the College of Health Sciences, 64.1% of the respondents felt that the key lies in integrating management subjects with the other components of the medical curriculum. Basing the management curriculum itself on management needs identified in the health field in Kenya was considered by 58.9% of the respondents as another important development.

In Table 6.10, p. 93, the developments desired by the respondents in management education given at the College are shown. It also indicates the differences in responses between the sample of lecturers and the sample of practitioners. While only 26.3% of the lecturers sampled would like to see a department of health services management set up within the faculty, 65% of the practitioners felt this was necessary. On the other hand, while 52.6% of the lecturers sampled would like to see closer ties develop between the Faculties of Medicine and Commerce, only 30% of the practitioners supported this view.

Table 6.9

Constraints in Applying Management Knowledge and Skills

Constraint	% of respondents (N=20)
1. Excessive bureaucracy and superiors lacking management background	70
2. Lack of sufficient equipment, facilities, finance and personnel	50
3. Poor supervision	45

Table 6.10

Developments Desired in Management Education Given in the College of Health Sciences

Developments	% of respondents		
	T	L	P
1. Integrating management subjects with other components of the medical programme	64.1	68.4	60
2. Basing the management curriculum more on management needs identified in the health field in Kenya	58.9	68.4	50
3. Setting up a department of health services management in the Faculty	46.2	26.3	65
4. Closer cooperation between the Faculty of Medicine and Department of Business Administration, Faculty of Commerce	41	52.6	30

T= Lecturers and Practitioners combined (N=39)

L= Lecturers (N=19)

P= Practitioners (N=20)

During informal discussions with the lecturers in the sample, a number of them pointed out that the first step in improving management education at the College should begin with the lecturers. They felt that all faculty lecturers, particularly chairmen of departments should receive training in management so as to run their departments more effectively and efficiently.

CHAPTER VII

CONCLUSIONS AND SOME RECOMMENDATIONS

The literature review in Chapter Three has shown the importance of management education and training for health personnel. Specifically in Kenya, management input into the health sector is a major goal of the government, in order to achieve the target of gradual reduction in public expenditure on health care over the next few years [1].

An important concept in management education and training for health personnel is the need for this education and training to reflect the requirements of the particular society in which this management background will be applied. Despite its acknowledged importance, the field of health services management as an area of study, involving, for example, evaluation of the health management process at the district and national level, is a relatively unexplored area in Kenya [2].

7.1 Conclusions

7.1.1 Management Education at the College of Health Sciences

The scope and content of management education currently given to the students at the College of Health Sciences, is varied. This variation is particularly evident among the different health professional courses offered by the College. At present, the nursing students receive a relatively more comprehensive course on both the theoretical and practical aspects of health services management than the medical, pharmacy and dentistry students.

While the nurses are given a firm grounding in the principles of management and their application to the Kenyan health care system, their preparation in financial management is not sufficient. A course in financial management (to supplement their current course in budgeting) would make the graduates of the programme more 'cost aware' and thus able to contribute to a more cost effective performance of the health institution in which they work.

The medical students receive management courses intermittently during their five year medical programme. These courses are given in the first, second and fourth year of study. Time spent in these lectures on management theory is meagre[3]. On the other hand they are given extensive exposure to the practical aspects of health services management during their fourth year administrative practicum. But some questions may be raised as to the effectiveness of this practical exposure without a firm background in principles of management, particularly with regard to transferability of management learning experiences from one situation to another.

This study has revealed that the Dentistry and Pharmacy students received no lectures on principles of management. A redeeming feature for the pharmacy students was their exposure to practical pharmaceutical management situations during their observation visits to industry and attachment to a pharmacy during their third and fourth year of study.

The lecturers at the faculty included in the sample favour broad objectives for management courses which emphasize blending of theoretical management concepts with practical, analytical and problem solving skills. The design of a management curriculum to cover these objectives in the time available for teaching, will pose a formidable challenge.

The major teaching technique used by the management lecturers is the lecture method, particularly for the medicine students. The nursing students in addition to attending lectures, are involved in class discussions, presentations, field trips and seminars on nursing administration. The administrative practicums also provide learning experience in the field of health management.

Of the four lecturers from the Faculty of Medicine teaching management related subjects and included in the sample, one (from the department of Advanced Nursing) had educational qualifications in both health and management and health management experience in the field. The lecturer taking the Health Services Management course had educational qualifications in the health field together with a wealth of experience in

health administration at both a national and an international level. This professional background of the lecturers is very relevant to the management courses they teach.

The major problems in providing management education at the College of Health Sciences were identified by the sample in this study as, firstly, the poor rating of management subjects vis a vis other subjects taught at the College; secondly, insufficient time devoted to the management subjects taught; thirdly, lack of published teaching material, and shortage of adequately trained staff.

It is worth noting that during informal discussions with faculty staff, many raised the issue of the importance of management orientation for all lecturers (those teaching management or clinical/science subjects) in the faculty, as first step in improving management education at the College.

7.1.2 A Survey on Management Requirements for Health Personnel

The majority of the lecturers and practitioners in the sample considered management orientation as very relevant to the health professions. This view supported similar observations in the literature which had been reviewed. The respondents were also of the opinion that management orientation should be provided during both the vocational training for the profession and the post-qualification training periods.

This implies that management development of health personnel should be an on-going process. The basic knowledge and skills acquired during the vocational training need to be reviewed and supplemented according to the specific needs of the working environment.

The major fields of management which the respondents considered as very necessary for students at the undergraduate level were Policy and Development, Human Resources Management and aspects of Financial Management. Currently only the first two of the mentioned courses are given to students of medicine and nursing at the College. But the emphasis in these

courses is almost entirely on health services management in the public sector. While undoubtedly the public sector deserves emphasis, given the current socio-economic structure of health services in Kenya, the students should also be made aware of the application of management principles in the private health care sector.

The management education given at the College should also continue emphasizing the hurdles which graduates will face in putting into practice the management knowledge and skills they have been provided with. The respondents in the survey conducted identified excessive bureaucracy and lack of material resources and personnel as among the major hurdles to be faced.

7.2 Recommendations for Strengthening Management Education at the College of Health Sciences

The recommendations that follow are very broad in nature. Developments in Kenya such as the effects of the 8-4-4 educational system on University education from 1989 onwards, make it opportune to review the management curricula at the College. The recommendations include the following:-

- (1) The provision of periodic management refresher courses to all the teaching staff of the Faculty of Medicine. These courses, with the stress on health services management, will provide an appropriate environment to develop management education for the students.

- (2) Students of all the professional disciplines in the Faculty should be given basic appreciation courses in National Health Policy, Personnel Management and Public Relations and Financial Management. In National Health Policy the emphasis should be on the proposed reduction in public spending on health care, the role and functions of the Ministry of Health, and the role of the private sector in health care. The

Personnel Management and Public Relations course should emphasize interpersonal relations and group dynamics. The Financial Management course should stress the need for budgets, and budget preparation and control.

- (3) Closer links should be established between the department of Community Health of the Faculty of Medicine and the Department of Business Administration of the Faculty of Commerce. The Department of Business Administration could for example provide personnel to run the courses mentioned in the preceding recommendations, as is done in the department of Nursing. Another area of cooperation could be to encourage business administration students to take on research projects related to health services management.

- (4) The establishment of a system of obtaining periodic feedback from the new graduates of the Faculty practicing in the field, and their supervisors, on the adequacy of the management preparation they received at the College.

- (5) The setting up of a continuing education programme in management for health practitioners should be considered. In addition to providing a valuable service to the health sector, this would enable the College to keep up to date with the management requirements of the Kenyan health sector.
- (6) Staff development in the area of health services management should be regarded as a priority for the Faculty. Initially, staff may have to be trained at least partly, overseas. Establishing a department of health services management in the University could eventually provide local training opportunities for such staff development.
- (7) The health practitioners and academics surveyed proposed a wide ranging list of management areas undergraduates should be exposed to. Given the time constraint faced in the Faculty, this exposure is probably best given through case study material. The College should therefore commission the development of local health management case study material. Cooperation with organizations such as AMREF and WHO may prove very useful in this regard.

Changes in educational programmes are more easily advocated than accomplished. Problems, alternatives and compromises have to be considered when embarking on new programmes. Some of the above recommendations are of a long term nature while others, such as (2) and (3), could be practicable in the short term.

7.3 Directions for Future Research

Developments aimed at improving management education for health personnel is very much dependent on an adequate data base from which new developments may be proposed. There is thus an urgent need for extensive studies covering all the 40 health districts in Kenya, in order to provide the necessary data base for improving managerial skills of health personnel [4].

Such studies would also reveal differences (if any) in management requirements for different categories of the health professions such as doctors, nurses, dentists, and paramedical staff, among others.

The appropriate curricula for health management education depends not only on identified management needs in the health sector but also on such factors as the time dimension, and the educational philosophy of the health

professions. Thus research efforts could also be directed at determining the appropriate educational philosophy for the health professions, within the context of Kenya's socio-economic environment.

Management development for the health services is a complex process. Management education for health personnel for example, must not only provide for the needs of the relatively known present, but must also anticipate and be adapted to the dynamic future. Thus the management curriculum at the College of Health Sciences should be periodically reviewed in order to ensure that it reflects the needs of the health care sector of Kenya.

While management education alone is not a solution to all the problems in health care delivery, it can help solve some of the conflicts by recognition of where the problems lie and how these may be solved. The above mentioned directions for future research and the preceding recommendations are not intended to be comprehensive or restrictive. It is hoped that they will stimulate the formation of more ideas and interest, and renew efforts to strengthen management education for the health professions in Kenya.

Notes and References

Chapter I

- [1] For example see Philip Ndegwa: Africa's Development Crisis (Nairobi: Heinemann), 1985, and John Iboko "Management Development and its Developing Patterns in Nigeria" Management International Review, 16, 3, 97-107.
- [2] Adjei: "Management Education for Africa - An Overview" p.11, in Management Education in Africa: Appraisal and Prospects. Selected papers and discussion from the conference held at the East African Management Institute, Arusha, 23rd - 26th November, 1976.
- [3] Kanani, S; Maneno, J; Schluter, P (eds): Health Service Management (Nairobi: Ministry of Health and AMREF), 1984, p. 111
- [4] Other factors, for example, include nutrition, sanitation and provision of clean drinking water.
- [5] This figure represents more than 25% of the government's total expenditure on health, education and welfare (see Economic Survey, 1985, p. 156).
- [6] Hornby, P; Ray, D; Shipp, P; Hall, T: Guidelines for Manpower Planning (Geneva: WHO), 1980.
- [7] Grant, G: "A Note on Application of Development Administration" Public Policy, V, XV, 1965, p. 205.
- [8] Typical Press articles include:
The Weekly Review "A Giant Headache" October 19th, 1984, p. 27.
Kenya Times "Nyakiamo calls for rational health care delivery system", Nov 26th, 1985, p.3.
Kenya Times "Operating theatres closed", Nov 27th, 1985, p.5
Kenya Times "Nurses urged to be tolerant" Dec 3rd, 1985, p.3
Daily Nation "Party branch is to probe poor hospital services" Feb 7th, 1986, p.3.
- [9] Kanani, op.cit., p.vii
- [10] Charnock, John: "Can Hospitals Be Managed by Objectives?" Journal of General Management 2,2, (winter 1975), 36-47.

- [11] World Health Organization: "Modern Management Methods and The Organization of Health Services" Public Health Papers n.55, Geneva, 1974.
- [12] Gunaratne, Herat: Challenges and Responses: Health in South-East Asia Region. (New Delhi: Tata McGraw-Hill), 1977.
- [13] Miller, J: "Job Satisfaction in Government Hospitals". Medicus, 4,5, (May 1985).
- [14] For example, the author checked the course outlines of undergraduate medical schools of Harvard University, Dar-es-Salaam University and Edinburgh University. These course outlines do support the assertion that management is a neglected area in undergraduate medical curricula.
- [15] Management education for the health professions will, for the purpose of this study, be defined as the process of imparting the requisite management knowledge, skills, and developing attitudes for harnessing health resources for the effective and efficient delivery of health care needed by society. Management education will be distinguished from management training. The latter will be taken to mean the process of acquiring necessary management skills and techniques after completion of one's vocational training, usually geared toward fulfilling a specific, pre-determined task.
- [16] See note [8].
- [17] See The Standard, Friday, July 29th, 1983 (p.9) which quotes the Senior Deputy Director of Medical Services Mr S. Kanani as follows: "On a technical level the staff know what to do and how to do it, but on a managerial level however, they are often uncertain".

Chapter II

- [1] For a more complete historical perspective, see Prof. A. Beck's article "History of Medicine and Health Services In Kenya [1900-1950]" in Vogel et al [eds] : Health and Disease in Kenya [Nairobi, E.A.L.B.], 1974, pp. 91-106.
- [2] Beck A "History of Medicine and Health Services In Kenya [1900- 1950]" in Vogel et al [eds] : Health and Disease in Kenya [Nairobi, E.A.L.B.], 1974, p.97.
- [3] ibid., p.99
- [4] ibid., pp.92-93
- [5] ibid., p.97
- [6] ibid.
- [7] Health Services are of many kinds. There are the hospitals, health centres, dispensaries, maternal and child welfare clinics and there are the health officers who give advice about the prevention of disease. Health institutions providing these services do not produce 'health' as such. The service provided has an indirect impact on health. If the service is not used at the time and place it is available, it cannot be 'stored' for later use like a physical product.
- [8] Kenya, Republic of : Official Handbook, 1983, p.195.
- [9] Karabu, M : "Work of The Nyeri District Health Management Team (D.H.M.T.)". An unpublished dissertation for the Master of Public Health (M.P.H.), Faculty of Medicine, University of Nairobi, 1985, p.3.
- [10] Meck, M: Problems And Prospects of Social Services In Kenya (Munich : Weltforum Verlag), 1971.
- [11] Karabu, op.cit., p.3
- [12] Ministry of Health (Kenya): "Proposals For the Improvement of Rural Health Services And The Development of Rural Health Training Centres In Kenya", Nairobi, August, 1972, p.19.
- [13] Karabu, op.cit. p.5
- [14] ibid. Also, see Appendix A for job descriptions and responsibilities of selected personnel in a D.H.M.T.
- [15] Kenya, Republic of: Official Handbook, 1983, p.191

- [16] Kenya, Republic of : Sessional Paper No 1 of 1986 "On Economic Management For Renewed growth" p.30. See also p.12 (paragraph 2.18) of the same document.
- [17] ibid., p.19
- [18] Kenya, Republic of : Official Handbook 1983, p.195
- [19] ibid.
- [20] Hornby, et al : Guidelines For Manpower Planning (Geneva : WHO), 1980, p.327.
- [21] See Chapter V of this report for further details on the College of Health Sciences.
- [22] See Appendix B p.125 , for more details.
- [23] From a feature article "K.N.H.: The Biggest Hospital Complex In Black Africa" Medicus 1,4, (Feb 1982), p.5
- [24] See WHO, Regional Office For Africa : Directory of Training Institutions For Health Personnel In The African Region V.3 (Brazaville : WHO), 1981. This directory provides a comprehensive list of such institutions in Kenya. The names of the institutions, entry qualifications and course details are given.
- [25] Kenya, Republic of : Official Handbook, 1983, p.194
- [26] See Chapter I p. 3 of this report
- [27] Kenya, Republic of : Official Handbook, 1983, p.188
- [28] See note [16] of this chapter.
- [29] Sessional Paper No.1 of 1986, op.cit., p.31.

Chapter III

- [1] Boone, L; Kurtz, D: Principles of Management (New York: Random House), 1981, p.19.
- [2] World Health Organization: "Modern Management Methods and The Organization of Health Services". Public Health Papers no.55, Geneva, 1974, p.77.
- [3] Ibid. p.17. Health has been defined in WHO's constitution as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.
- [4] Nsekela. A; Nhonoli, A: The Development of Health Services and Society in Mainland Tanzania (Dar es Salaam : E.A.L.B.), 1976, p.121. Preventive health care is contrasted with curative health services such as hospitals, dispensaries, etc. The former emphasizes health education of the population for health maintenance.
- [5] Ibid.
- [6] Kanani, S; Maneno, J; Schluter, P (eds): Health Service Management (Vol I) (Nairobi: Ministry of Health & AMREF), 1984, p(xi).
- [7] ibid., p.(xii). Adopted with some modifications. The authors do not classify management as a resource.
- [8] ibid.
- [9] Brown, J: The Health Care Dilemma. (New York: Human Science Press), 1978, p.30.
- [10] Davis, F(ed): The Nursing Profession: Five Sociological Essays (New York: John Wiley & Sons), 1966, p.112.
- [11] Harrison, F: Management and Organizations (Boston: Houghton-Mifflin), 1978, p.623.
- [12] ibid.
- [13] Blaise, H: "Developing Management Competence" in the proceedings of a workshop held in Singapore (August 14-17th, 1972) on Role of Universities In Management Education for National Development in South-East Asia, pp.327-340.
- [14] WHO; op.cit., p.91.
- [15] ibid., pp.83-84
- [16] ibid., p.55

- [17] ibid., p.94
- [18] ibid., p.17. Other areas of difference enumerated include:
- (1) Public attitudes to health
 - (2) Multiplicity of aims and objectives and of the criteria applied to them.
 - (3) The long interval between decision and outcome and the associated uncertainty surrounding decision-making
 - (4) Orientation to service rather than production
 - (5) The involvement of several professions in the management process
 - (6) Political intervention
 - (7) The scope for public involvement, and
 - (8) The need to coordinate many different agencies - official, private and voluntary.
- [19] Brown, op.cit., p.26 and WHO, op.cit., p.25. Here examples are provided of simulation and linear programming techniques applied to health services.
- [20] For a selected bibliography on hospital management literature, see Fernandes, D "The Hospital Administrator in Nairobi: His working environment, role and problems he faces". An unpublished Independent Paper, submitted in partial fulfilment of the requirements of the M.B.A. Degree, Faculty of Commerce, University of Nairobi, January, 1986.
- [21] Gatherer, A; Warren, M (eds): Management and The Health Services (Oxford: Pergamon Press), 1971, p.10.
- [22] Lewelyn-Davies, R; Macaulay, H: Hospital Planning and Administration (Geneva: WHO), 1966, p.8.
- [23] Forsyth, G; Thomas, D: "Models for Financially Healthy Hospitals", Harvard Business Review, 49,4, (July-Aug 1971), 106-107.
- [24] Goldsmith, J: "The Health Care Market: Can Hospitals Survive?" Harvard Business Review, 58,5, (Sep-Oct 1980), 100-112.
- [25] Phillips, M: "The Medical Administrator In Canadian Hospitals!" Management Decision, 22,3, (June 1984), 27-36.

- [26] Schulz, R; Johnson, J: Management of Hospitals (New York: McGraw-Hill), 1976.
- [27] Wasyluka, R: "New Blood For Tired Hospitals" Harvard Business Review 48,5, (Sep-Oct 1970), 65-74.
- [28] Llewelyn-Davies and Macaulay: op.cit., p.40.
- [29] Schulz and Johnson, op.cit., p.282
- [30] Young, D; Saltman, R: "Preventive Medicine for Hospital Costs" Harvard Business Review, 62,1 (Jan-Feb 1983), 126-133.
- [31] ibid.
- [32] Gunaratne, H: Challenges and Responses: Health in South East Asia Region (New Delhi: Tata McGraw-Hill), 1977, p.149.
- [33] Thorn, B: "Professional Education In Medicine" in Everett Hughes (ed) Education For The Professions of Medicine, Law, Theology and Social Welfare. (California: Carnegie Comm. on Higher Education), 1973, p.71.
- [34] WHO, op.cit., p.98
- [35] Thorn, op.cit., p.25
- [36] Guilbert, J: Educational Handbook For Health Personnel (Geneva: WHO), 1977, p.6.
- [37] World Health Organization, "Social Policy and Health Development In Africa - Community Health Information and Education" Afro Technical Papers no.16, WHO, 1979, p.33.
- [38] Gunaratne, op.cit., p.241
- [39] Hanlon, J: Principles of Public Health Administration (St. Louis: C.V. Mosby), 1960, p.10.
- [40] Migue, M: "Paramedical Education" in Vogel, L; Muller, A; Odingo, R; Onyango, Z; De Geus, A (eds) Health and Disease in Kenya [Nairobi: E.A.L.B.), 1974, p.148.
- [41] Mungai, J: "Medical Education" in Vogel et al Health and Disease In Kenya pp 142-145. See note [40].
- [42] Barrows, H: "Decisions In Medical Practice : Introduction" American Behavioral Scientist, 25,5, (May-June, 1982), p.506
- [43] Gunaratne, op.cit., p.147, p.149

- [44] World Health Organization: "Modern Management Methods and The Organization of Health Services". Public Health Papers no.55, Geneva, 1974, p.90.
- [45] ibid., p.96.
- [46] Kanani, S; Maneno, J; Schluter, P (eds): Health Service Management (Vol I). (Nairobi: Ministry of Health and AMREF), 1984, p.xiii.
- [47] ibid., p.viii
- [48] Coggeshall L: Planning for Medical Progress Through Education (New York: Association of American Medical Colleges), 1965,p.77
- [49] WHO, op.cit., p.72
- [50] ibid., p.43
- [51] ibid., p.95

Chapter IV

- [1] Churchill Jr, G : Marketing Research : Methodological Foundations (3rd ed) (Tokyo : Holt-Saunders), 1983, p.76.
- [2] This period of formal training includes the internship period after graduation.
- [3] They would for example, be in charge of a district health team which includes personnel trained at the College of Health Professions (MTC, Nairobi) and other health training institutions. See also Appendix A, p.
- [4] The information sought on these management courses covered content, teaching methods, course hours, and qualification and experience of lecturers teaching management courses.
- [5] See Chapter V p. 79 for details on the types of problems encountered by these departments, the department of pharmacy and the department of dental surgery.
- [6] See Appendix C, p.127 for final questionnaires used.
- [7] See Appendix D, p.148 for initial questionnaires which were constructed (before pretesting).

Initially, final year B.D.S. and B.Pharm students were also included in the sample. But during the pretest stage it was found that these two groups had not received any management lectures during their studies. They were thus not included in the final sample.

- [8] Strictly speaking, this would make the sample a snowball sample, which is a type of judgemental sampling. (See Churchill Jr, op.cit, p.346). The "snowballed" sample units included the administrators of the Kiambu District Hospital, the University of Nairobi Health Services and the Kenya Medical Research Institute. The Provincial Medical Officer of Health Coast province was identified but not approached because of time constraints.

Chapter V

- [1] See note [6] of Chapter 1
- [2] Gunaratne, H: Challenges and Responses: Health in South-East Asia Region (New Delhi: Tata-McGrawHill), 1977, p. 241.
- [3] Rowbottom, R: Hospital Organization (London: Heinemann), 1973, p. 146.
He further points out that nursing is a diverse collection of professionals who receive highly varied training and conduct widely dissimilar functions.
- [4] This section is largely based on material drawn from various sources including the University of Nairobi Calendars, University of Nairobi Annual Reports and internal documents of the Faculty of Medicine.
- [5] There are now the following sixteen teaching departments in the faculty: Medicine, Surgery, Orthopaedic Surgery, Human Anatomy, Medical Physiology, Biochemistry, Community Health, Paediatrics, Obstetrics and Gynaecology, Human Pathology, Medical Microbiology, Advanced Nursing, Psychiatry, Diagnostic Radiology, Dental Surgery and Pharmacy. An Immunology Centre is also attached to the faculty.
- [6] See Appendix G. p.193, for further relevant statistics on the Faculty.
- [7] These courses are available in Medicine, Surgery, Paediatrics, Obstetrics and Gynaecology, Diagnostic Radiology, Community Health, Ophthalmology and Anaesthesia.
- [8] Personal interviews with Prof. T Ogada, Dean, Faculty of Medicine, Dr. G Muriuki, Chairman, department of Pharmacy, and Dr. C Wagaiyu, Chairman, department of Dental Surgery.
- [9] Personal interview with Mrs J. Wachira, Chairman, Department of Advanced Nursing.
- [10] Personal interview with Prof. Bwibo, Principal, College of Health Sciences, University of Nairobi.
- [11] Both in usage and in the literature on health services, the terms 'management' and 'administration' tend to be used interchangeably. There is however, a difference in connotation. Management implies direction and the ability to influence and/or control the organization and its environment. Administration implies a more passive role, providing technical and support functions in the operation of organization.

- [12] See Chapter I, note [15] where a working definition of management education for the health professions is given.
- [13] Matovu, H "Community Health For Medical Students: The Undergraduate Curriculum at the University of Nairobi". A publication of the Department of Community Health, Faculty of Medicine, University of Nairobi, July 1981, pp.1-2.
- [14] Personal interview with Mrs J. Wachira, Chairman, Department of Advanced Nursing, University of Nairobi., 13th May, 1986.
- [15] ibid.
- [16] See note [17], Chapter IV
- [17] See Appendix H. p. 196 , for calculation details for mean scores.
- [18] Three respondents replied "can't say" to the question on adequacy of time. These three responses were not considered in the analysis, making the relevant sample size 16.
- [19] From personal interviews with the respective Chairmen of Departments.

Chapter VII

- [1] See note [16], Chapter II
- [2] Karabu, M "Work of the Nyeri District Health Management Team (D.H.M.T)". An unpublished dissertation for the Master of Public Health (M.P.H), of the University of Nairobi (Faculty of Medicine) 1985, p. vii.
- [3] See Table 5.3, p. 65 and compare lecture hours with those for Nursing students, Table 5.4, p. 70 .
- [4] Karabu, op.cit.

APPENDIX A

Job Descriptions and Responsibilities for Selected Personnel
in a District Health Management Team

TERMS OF REFERENCE FOR THE MEDICAL OFFICER OF HEALTH (MOH)

In collaboration with the Clinical Disciplines, Specialists and other members of the health team, the Medical Officer of Health at the District level will be expected to:-

1. Participate in the management of disease prevalent in his/her area of responsibility. This includes treatment of patients and rehabilitative health care services to individual and community.
2. Coordinate and ensure optimal utilisation of human, material, and financial resources in the management of health care.
3. Identify health needs of the community within his/her area of responsibility and on the basis of such identified needs, formulate objectives and set priorities in conformity with the Ministry of Health policies.
4. Provide on regular basis comprehensive reports on all health and health related activities on the basis of adequately compiled vital and health statistics.
5. Carry out epidemiological surveys of disease and conditions prevalent in the area of her/his responsibility.
6. Formulate and implement viable methods, including health education programmes, for the control and/or eradication of community health problems.
7. Design strategies for the identification of the "at-risk" groups of the community with a view to meeting the special needs of these groups and establish consultation with the community.
8. Formulate, and participate in the implementation of community based health programmes and provide managerial and technical support to all community health activities.
9. Participate in educational and training programmes for health workers as may be required by the policy of the Ministry of Health.
10. Create and promote a multi-disciplinary team approach to communicate health information.
11. Establish viable liaison with other Government agencies as well as non-government organizations in community development activities as part of the overall national development.
12. Provide advice and expert opinion on health acts, rules and regulations including medico-legal matters where such advice and opinion may be required.

DUTIES AND RESPONSIBILITIES OF A DISTRICT HEALTH ADMINISTRATOR
(HOSPITAL SECRETARY)

RESPONSIBILITIES

Responsible to the District Medical Officer of Health for:

- The management, co-ordination and planning of health services in the District
- Budgeting for both Recurrent and Development requirements for the district which includes Hospitals, Health Centres and Dispensaries, Environmental Health Programmes, Nutrition, Health Education and other preventive and promotive health programmes in the district.
- Establishing internal control procedures for ordering, receiving, and accounting for goods and services required in the district with a view to achieving effective and efficient use of funds allocated for running hospital services and for health services development.
- Expenditure control on the funds allocated for running health services in the district.
- Health services planning, implementation and commissioning of new projects in liaison with the other members of the District Health Team and D.D.C.
- Ensuring effective supplies management including disposal of Government stores belonging to the Department throughout the district.
- Maintenance of buildings, plants and equipment and making sure that all technical equipment in hospitals and other health institutions are regularly serviced and maintained by appointed government contractors.
- Analysis of health data available in the district for purposes of assessing development needs for further action with the District Development Committee.

DUTIES

Consistent with the above responsibilities the District Health Administrator will perform the following duties:

- Preparation of Annual Estimates of Expenditure (both Recurrent and Development) for the district.
- Control of Recurrent Expenditure on all allocations made to institutions and programmes in the district in liaison with

the District Treasury and the spending units, including advising on appropriate action to be taken where shortfalls are discovered.

- Coordination of supplies management, financial management and personnel management in the District.
- Management and coordination of the maintenance of buildings, plants, equipment and means of transportation.
- Giving guidance, supervision and conducting on-the-job training for Health Administrative staff, supplies staff, secretarial staff, catering staff, clerical officers, drivers and other supportive staff.
- Giving guidance on effective office management including the supervision of registries, movement of files, incoming and outgoing correspondence with particular emphasis on maintenance of government secrets.
- Providing advice to technical and professional heads of department on terms of service, schemes of service including staff development, and the administration of discipline in the Public Service by participating in the various committees of the District Health Team.
- Ensuring safe custody of accountable documents, accounting machines, safes etc through regular inspection visits to the units using these items.
- Public relations work, including the coordination of staff-welfare activities in the district.
- Arranging for site acquisition for all health projects appearing in the district works programme so that land acquisition does not delay the commencement of projects.
- Monitoring project progress by regularly attending site meetings and noting the progress and any problems needing attention. Communicating any major problems to the DDC for action and keeping the Accounting Officer informed of the progress of projects in the district.
- Coordinating the formation of Project Commissioning Teams so that equipment, personnel, supplies and means of transport are available when the projects are completed and ready for take over by the Ministry of Health. The District Health Administrator will spearhead the commissioning of all new health projects in the district in liaison with the other members of the District Health Team.

DEVELOPMENT

- Assessing development needs through analysis of available data and in liaison with the other functional representatives in the District Health Team.
- Preparing and submitting health project briefs for discussion and approval by the DDC.
- Costing approved projects and including them in the draft development estimates for consideration by the DDC and onward transmission to the accounting officer and the Treasury.
- Giving necessary inputs to enable the district works officer to prepare specifications for tenders relating to health construction projects in the district.

NURSING OFFICER IN CHARGE
(HOSPITAL HEALTH SERVICES)

Job Title	-	Nursing Service Administration
Qualification	-	KRN/M, or KRN/PN - One other post basic course Diploma in Nursing administration from a recognized institution.
Experience	-	Minimum 3 years experience in the position of Nursing Officer II.
Job Group	-	J (Proposed K)
Responsible to	-	DCNO, Provincial Headquarters.

KEY RESPONSIBILITIES

- Directs Nursing Services in the hospital.
- A member of the hospital management team.
- Advises the hospital management team on all matters concerning nursing.
- Interprets and implements nursing philosophy, objectives and policy in own institution.
- Plans, organizes, directs and evaluates nursing services in the hospital.
- Co-ordinates nursing activities in various departments.
- Maintains the relevant service and staff records/statistics.
- Deploys staff as per service and staff requirements.
- Supervises personnel, patient care and performance.
- Enforces adherence to laid down staff and professional regulations.
- Conducts staff development activities.
- Ensures availability of equipment and other relevant resources.

- Liaises with training institutions on matters relating to students learning experiences in the hospital.
- Evaluates nursing care, staff performance and nursing services in the institution.
- Submits relevant reports as required.
- Participates in trainee recruitment activities.
- Participates in internal assessment for students.
- Performs other duties as may be delegated from time to time.

APPENDIX B

Courses offered at the College of Health Professions, Nairobi

The College of Health Professions consists of the following faculties and departments:

1. Clinical Medicine

This includes Registered Clinical Officers general courses and others in Ear, Nose and Throat, Ophthalmic, Paediatrics, Orthopaedics, Tuberculosis and Leprosy and Medical Records Technicians course.

2. Education Development and Research

It trains trainers of trainees. Teaching Methodology and principles of Administration are taught.

3. Environmental Health Science

This includes Environmental Health Officers course, Health Technicians course, Meat and other Foods course and Health Education course.

4. Medical Laboratory Technology

This includes Medical Laboratory Technology course, Entomological Field Laboratory Technician course and Medical Laboratory Technician course.

5. Nursing

This includes General Nursing, Midwifery, Public Health Nursing, Psychiatric Nursing, Intensive Care Nursing and Theatre Technicians course.

6. Physical Medicine

This includes Physiotherapy, Dental Technology, Orthopaedic Technology.

7. Occupational Therapy

APPENDIX C

Questionnaires used in the Study



UNIVERSITY OF NAIROBI

FACULTY OF COMMERCE

Telephone: 334244

DEPARTMENT OF BUSINESS ADMINISTRATION

P. O. Box 30197

Telegrams: "Varsity" Nairobi

Nairobi, Kenya.

Our Ref:

Your Ref:

May 5th, 1986

Dear Respondent,

Knowledge of management principles and practice is considered essential for all categories of the health professions. Currently, there seems to be some debate as to how much management orientation should be given to students during their vocational training for the health professions.

The attached questionnaire is specifically designed to obtain information which can contribute toward improving the management education given to undergraduates at the Faculty of Medicine, College of Health Sciences, University of Nairobi.

The information you provide will be collated with that obtained from others, and you as an individual will not be identified with the results of the study in any way.

These results will be used in preparing my Masters in Business Administration (M.B.A.) Management Project. The title of this project is "Management Education for The Health Professions: The Case of the College of Health Sciences, University of Nairobi." With your cooperation, this study will shed light on some of the ways in which more effective management education may be provided at the College of Health Sciences.

I would greatly appreciate your completing the attached questionnaire by early next week. I will call on you to collect the filled-out questionnaire.

I shall be glad to send you a copy of the conclusions of this study if you so indicate in the questionnaire. Thank you for your assistance.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Fernandes", written over a horizontal line.

DANNY FERNANDES

QUESTIONNAIRE FOR FACULTY STUDENTS

1. Which of the following qualifications are you being prepared for?

M.B Ch. B

Dip, Advanced Nursing

Year of Study

2. Are you aware of the objectives of the management courses you have done?

yes

no

3. How do you rate your management courses against the clinical/science subjects you have studied?

more important

equally important

less important

of no importance

4. A scale is provided below to give you a range between a very negative (1) and a very positive (4) reaction from which to state your feelings on the management courses. Please tick in the appropriate box.

a) understanding of the lectures was

	difficult		easy	
	1	2	3	4

b) illustrations and examples used were

	(i) unclear		clear	
	1	2	3	4

	(ii) not relevant to Kenya		very relevant to Kenya	
	1	2	3	4

c) time spent on them was

	too short		too long	
	1	2	3	4

d) in general the courses were

	boring		very interesting	
	1	2	3	4

5. Your medical curricula includes periods of attachments to health centres and clinics. Based on that experience, please briefly enumerate some management skills you consider necessary (in order of importance) for a graduate from your course:

1. _____
2. _____
3. _____
4. _____
5. _____

6. What suggestions for improving the offered management courses do you have with respect to:

a) Content of the courses

b) Relevance of course

c) Teaching methods employed

d) Qualifications and experience of lecturers

e) Other (please specify)

QUESTIONNAIRE FOR FACULTY TEACHING STAFF

SECTION A

1. Please indicate your educational background by ticking in the appropriate box below:

Qualification	Field			
	Medicine	Nursing	Management	Other (please specify)
a) Certificate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Diploma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Bachelor's Degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Master's Degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Doctorate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Are you a member of a professional association?

yes

no

3. If 'yes', please indicate details below:

Name of Professional
association

Grade of Membership

4. Which courses are you currently teaching?

Course	students taught			
	M.B Ch.B	B.D.S	B.Pharm	Dip.Advanced Nursing
a. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How relevant to the health professions, in your opinion, is the acquisition of management knowledge and skills?

not relevant

marginally relevant

relevant

very relevant

6. If you consider management knowledge and skills to be at least marginally relevant to health professions, when should management orientation be provided to health personnel?

during their formal education in the health profession

by post-qualification training

from practical working experience

by various combinations of the above three methods

other (please specify) _____

7. In your opinion, what importance is given to management subjects vis a vis other clinical and science subjects taught at the College?

more importance

equal importance

less importance

no importance

SECTION B:

Questions 8 - 16 are only for lecturers teaching management Courses. If you do not teach a management Course please proceed to Section C, Q 17. If you teach a management course please complete both Sections B and C

8. What are the objectives of the management course(s) you teach

<u>Course</u>	<u>Objective</u>
_____	_____
_____	_____
_____	_____
_____	_____

9. On what criteria were these objectives based?

- Experience of faculties of medicine of other Universities
- based on management needs of medical personnel in Kenya
- other (please specify) _____

10. Do you evaluate your management courses to see if your 'product' exhibits the desired behaviour?

- yes
- no

11. If 'yes', do you feel you have achieved the objectives over the years the courses have been offered?

<u>Course</u>	not at all	poorly	fair	well	very well
_____	<input type="checkbox"/>				
_____	<input type="checkbox"/>				
_____	<input type="checkbox"/>				

12. How do the current management courses prepare the students in management related to the areas specified below?

	not at all	poorly	fair	well	very well
a) individual behaviour	<input type="checkbox"/>				
b) task	<input type="checkbox"/>				
c) group dynamics	<input type="checkbox"/>				
d) organization theory	<input type="checkbox"/>				
e) systems view	<input type="checkbox"/>				

13. Do your management courses emphasize local

	Yes	No
a) applications	<input type="checkbox"/>	<input type="checkbox"/>
b) constraints	<input type="checkbox"/>	<input type="checkbox"/>
c) situations	<input type="checkbox"/>	<input type="checkbox"/>
d) all the above	<input type="checkbox"/>	<input type="checkbox"/>

14. Do you invite practitioners from health care institutions to lecture on management aspects to your students?

yes

no

15. Have you had working experience in an institution other than a University?

yes

no

16. If 'yes', please indicate briefly the type of working experience you have had.

SECTION C:

17. In your opinion, is the time allocated to the management courses in the medical curricula

- too little
- about right
- too much
- can't say

18. How would you rate the following objectives of management education with respect to the students in your College?

	very necessary	necessary	not necessary
a) broaden intellectual base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) develop analytical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) develop specific attitudes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) improve general problem solving/decision making capability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Schedule of Management Activity

very necessary	necessary	not necessary
----------------	-----------	---------------

- administrative staffing and control

- management of a consulting practice

D. Human Resources Management

- human resource planning

- industrial relations

- job evaluation and grading

- wage and salary structures

- search, selection and recruitment

- appraisal and assessment systems and procedures

- management and staff development and training

- organization and job structuring

- behavioral sciences

- management of change

- group dynamics/team work

- supervision

- delegation

- setting up and chairing meetings

- use of committees

E. Management Sciences/Information Technology

- statistical analysis

- decision analysis

- operational research

- computer appreciation

20. In your opinion what are some of the constraints faced by the College in providing management education to its students?

- lack of interest on the part of students
- students already loaded timewise
- lack of local materials for teaching
- books and published articles on management too 'business' oriented
- shortage of adequately trained staff
- poor rating of management vis a vis other subjects taught
- other (please specify) _____

21. Which are some of the undermentioned developments you would like to see in management education given at the College?

- basing the management curriculum more on management needs identified in the health field in Kenya.
- setting up of a department of health management in the Faculty.
- closer cooperation between the Faculty of Medicine and Department of Business Administration Faculty of Commerce
- integrating management subjects with the other components of the medical program.
- other (please specify) _____

22. If you would be interested in receiving feedback on the results of this study, please fill in your name and address below:

Name _____

P.O. Box _____

THANK YOU FOR YOUR COOPERATION

QUESTIONNAIRE FOR PRACTITIONERS IN HEALTH ORGANIZATIONS

SECTION A:

1. Please provide the following details with respect to the organization you work for:

a) Name of organization _____

b) Your current job title
in the organization _____

2. Please indicate your educational background by ticking in the appropriate box below:

Qualification	Field			
	Medicine	Nursing	Management	Other (please specify)
a) Certificate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Diploma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Bachelor's Degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Doctorate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Are you a member of a professional association?

yes
 no

4. If 'yes', please indicate details below:

Name of professional
association

Grade of membership

5. Briefly, what do your current responsibilities involve?

SECTION B:

6. How relevant to the health professions, in your opinion, is the acquisition of management knowledge and skills?

- not relevant
- marginally relevant
- relevant
- very relevant

7. If you consider management knowledge and skills to be at least marginally relevant to health professions, when should management orientation be given to health personnel?

- during their formal education in the health profession
 - by post-qualification training
 - from practical working experience
 - by various combinations of the above three methods
 - other (please specify) _____
-
-

8. Do you feel that management courses for health personnel should emphasize local:

	Yes	No
a) applications	<input type="checkbox"/>	<input type="checkbox"/>
b) constraints	<input type="checkbox"/>	<input type="checkbox"/>
c) situations	<input type="checkbox"/>	<input type="checkbox"/>

9. Do you think that inviting practitioners from health care organizations to lecture on management aspects to students in health care training institutions is

- very necessary
- necessary
- not necessary

10. How would you rate the need for the following objectives of management education with respect to students in health care training institutions?

	very necessary	necessary	not necessary
a) broaden intellectual base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) develop analytical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) develop specific attitudes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) improve general problem solving/decision making capability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Have you had an occasion to work with graduates from the faculty of medicine of the University of Nairobi?

yes

no

12. If 'yes', what would you consider to be the major deficiencies (if any) in management preparation of the graduates from this institution?

14. What are some of the constraints faced by health personnel in Kenya, in putting into practice their management knowledge and skills in their work environment?

15. Which are some of the undermentioned developments you would like to see in management education given at the College of Health Sciences, (Faculty of Medicine), University of Nairobi.

- basing the management curriculum more on management needs identified in the health field in Kenya.
- setting up of a department of health management in the faculty of medicine
- closer cooperation between the Faculty of Medicine and Department of Business Administration, Faculty of Commerce
- integrating management subjects with the other components of the medical program.
- other (please specify) _____

16. If you would be interested in receiving feedback on the results of this study, please fill in your name and address below:

Name _____

P.O. Box _____

APPENDIX D

Questionnaires developed before pretesting

Questionnaire for faculty students

1. Which of the following qualifications are you being prepared for?

<input type="checkbox"/>	M.B Ch.B
<input type="checkbox"/>	B.D.S
<input type="checkbox"/>	B.Pharm
<input type="checkbox"/>	Dip. Advanced Nursing

2. Are you aware of the objectives of the management courses you have done?

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

3. How do you rate your management courses against the clinical/science subjects you have studied?

<input type="checkbox"/>	more important
<input type="checkbox"/>	equally important
<input type="checkbox"/>	less important
<input type="checkbox"/>	of no importance

4. A scale is provided below to give you a range between a very negative (1) and a very positive (4) reaction from which to state your feelings on the management courses. Please tick in the appropriate box.

a) understanding of the lectures was

difficult				easy
1	2	3	4	

b) illustrations and examples used were

(i)

unclear				clear
1	2	3	4	

(ii)

not relevant to Kenya				very relevant to Kenya
1	2	3	4	

c) time spent on them was

too short				too long
1	2	3	4	

d) in general the courses were

(i)

boring				very interesting
1	2	3	4	

(ii)

not useful				very useful
1	2	3	4	

5. Your medical curricula includes periods of attachments to health centres and clinics. Based on that experience, please briefly enumerate some management skills you consider necessary (in order of importance) for a graduate from your course:

1. _____
2. _____
3. _____
4. _____
5. _____

6. What suggestions for improving the offered management courses do you have?

Questionnaire for College faculty members

I. Please give me some information on

- a) Your qualifications _____
- b) Work experience (yrs) _____
- c) The subjects you currently teach:

Subject	Class
_____	_____
_____	_____
_____	_____
_____	_____

2. How relevant do you consider management development is for health delivery?

- Not relevant
- Marginally relevant
- Relevant
- Very relevant

3. If you consider management development at least marginally relevant for health personnel, how should management orientation be provided to them?

- during their formal education in the health profession
- by post-qualification training
- from practical working experience
- by various combinations of the above three methods
- other (please specify) _____

4. What importance is given to management subjects vis a vis other clinical and scientific subjects taught?

5. What are the objectives of the various management related courses the College offers?

6. On what criteria were these objectives based?

7. Do you evaluate your management courses to see if your 'product' exhibits the desired behaviour?

yes
 no

8. If 'Yes', do you feel you have achieved the objectives over the years the courses have been offered?

		not at all	poorly	fair	well	very well
<u>Course</u>	<u>Objective</u>					
		<input type="checkbox"/>				
		<input type="checkbox"/>				

(separate cards are provided to record information for each course)

9. Do you find the time allocated for the management courses is:

Course	too little	about right	too much
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. How would you rate the following objectives of management education with respect to the students in your College?

	very necessary	necessary	not necessary
a) broaden intellectual base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) develop analytical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) develop specific attitudes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) improve general problem solving/decision making capability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. How do the current management courses prepare the students in management related to the areas specified below?

	not at all	poorly	fair	well	very well
a) individual behaviour	<input type="checkbox"/>				
b) task	<input type="checkbox"/>				
c) group dynamics	<input type="checkbox"/>				
d) organization theory	<input type="checkbox"/>				
e) systems view	<input type="checkbox"/>				

12. Do your management courses emphasise local

	Yes	No
a) applications	<input type="checkbox"/>	<input type="checkbox"/>
b) constraints	<input type="checkbox"/>	<input type="checkbox"/>
c) situations	<input type="checkbox"/>	<input type="checkbox"/>

13. Do you invite practitioners from health care institutions to lecture on management aspects to your students?

yes
 no

14. What are some of the constraints you face in providing management education to your students?

- lack of interest on the part of students
- students already overloaded timewise
- lack of local materials for teaching
- poor rating of management vis a vis other subjects in the faculty
- other (please specify) _____

15. What are some of the developments you would like to see in management education given in the College?

Questionnaire for:

- a) Interns from the College of Health Sciences
- b) Administrators of health care institutions
- c) Officials of organizations for health personnel
- d) Officials of health related organizations

1. For what organization do you work?

2. What are your academic/professional qualifications ?

3. Briefly, what do your current responsibilities involve?

4. Do you think that student doctors should receive management education?

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

5. If 'yes', what kind of management education would you recommend?

6. If 'no', why do you think that way?

7. Do you think that student nurses should receive management education?

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

8. If 'yes', what type of management education would you recommend?

9. If 'no', why do you think that way?

10. From your personal experience, what would you consider to be the major deficiencies (if any) in the management preparation of graduates from the College of Health Sciences, University of Nairobi?

II. What are some of the constraints faced by health personnel in putting into practice their management knowledge and skills in their work environment?

APPENDIX E

Details of Some Management-Related Courses
given to Medical Undergraduates

COURSE OUTLINE

3.1 . Behavioural Science In Medical Sociology

This course is offered in the first year as a joint programme of instruction in Behavioural Sciences conducted by the Department of Community Health (for Medical Sociology) and the Department of Psychiatry (for psychology). During the fourth year clerkship in community health, several lectures are given on topics of applied nature.

3.1.1 Educational Objectives

The principal aim of the course is to expose the students to sociological ideas relevant to their future role as general-duty medical officers and, possibly, as district medical officers. In such roles the doctor is expected to:

- evaluate sociological literature dealing with problems of medical and health care;
- analyse the response of individuals, families, and communities to health problems and to organised curative and preventive health programmes;
- understand people's perceptions of causation and cure of diseases, and identify related social/cultural practices so as to enable him to tactfully persuade such people to use available health services adequately.
- know the indigenous health care systems and facilities utilised by the community and relate to them appropriately.

Therefore, by the end of the course the student should be able to:

Discuss the role of medical sociology in the work of health professionals;

Outline the different types of family composition, roles and functions and explain their implications for family and community health;

differentiate between illness and disease;

list and discuss socio-economic, psycho-social and cultural factors which have important implications for family and community health;

relate sick roles to social and cultural factors, particularly in the East African setting;

discuss the role of traditional medicine in a developing country;

describe some East African traditional medical beliefs, attitudes and practices;

describe the various traditional medical systems and how they co-exist with, or complement, modern medical practice;

differentiate between crime and deviance and describe the role of the family in their causation;

describe trends in social change in East Africa with special reference to the rural-urban shift;

describe how the disease nature, the patient characteristics, and factors in the health service itself may influence the utilization of available health services;

compare formal and informal groups and discuss how such groups influence the communication and decision-making processes;

explain in which ways a hospital is a formal organization and outline the role of a doctor in such an organization;

3.1.2 Content

- . Introduction to sociology:
 - What is sociology?
 - Place of sociology in social sciences
 - Relevance of sociology to the work of health professionals
- . The Family:
 - Kinship and marriage
 - Family composition, size, structure, and roles
 - The family and the community
 - Functions of the family, e.g. socialization of children
 - Family in relation to community health
 - Family as a primary group

- . Response to illness and diseases:
 - Difference between illness and disease
 - The sick role
 - Family socio-economic dependents and the sick role
 - Culture, mental illness, epilepsy, tuberculosis
 - Traditional medicine vs. modern medicine
 - Complement and co-existence
 - Role of traditional medicine in a developing country
 - The 'Mganga'
 - Some systems of medical practise
 - East African medical attitudes

- . Formal Organizations:
 - Formal and informal groups
 - Bureaucracy
 - Communication and decision-making processes
 - Group interactions and dynamics, e.g. pressure groups as informal groups in formal organizations.
 - The hospital as a formal organization
 - The role of a doctor in a district hospital

- . Social change:
 - Social change and development
 - Urbanization and urbanism in East Africa
 - Rural-urban continuum
 - Population movements in East Africa

- . Crime and deviance in society:
 - Difference between crime and deviance
 - Family problems and their influence on crime and deviance in society
 - Juvenile delinquency

- . Utilization of health services:
 - Patterns of diseases
 - Areas/preferences
 - Patient characteristics, (age, sex, etc).
 - Availability, accessibility and acceptability of health services.

COURSE OUTLINE

3.2 BIostatistics

The course in statistics starts in the first year and is continued in the second year. During the fourth year clerkship term, selected topics are revised and the students are also helped to apply their knowledge of statistics to the handling of the field project data.

3.2.1 Educational Objectives

On completion of the course the student should be able to:

collect, record and code statistical data;
analyse, interpret and report data in the form of tables, graphs and other suitable statistical formats;
apply statistical techniques to describe health problems in quantitative terms;
criticize statistical inferences in research publications.

More specifically, the student should be able to:

- . Define simple statistical terms:
- . Describe and explain the use of
Tables, graphs, diagrams,
Frequency distribution,
Measures of central tendency
measures of spread
the normal distribution,
population and population sample,
parameter, statistic,
proportion, percentage, ratio
- . Calculate or perform the following:

frequency distribution,
cumulative frequency distribution
draw a histogram
 a frequency polygon
 a bar diagram
 a pie chart
design a scatter diagram
proportion, percentage, ratio
arithmetic mean, mode, median
range, standard deviation
coefficient of variation
percentiles,
formulate a 'null hypothesis'
test for quantitative data
critical ratio test for both qualitative and
quantitative data
chi-square test for qualitative data
interpret significance tests in relation to Null
Hypothesis and formulate valid conclusions
- . Describe and apply the concepts underlying the
following:
probability
statistical significance tests
sampling

Content

- . Sources of data
- . Kinds of data
- . Population and sample:
- Advantages and disadvantages of sampling
- Methods of sampling
- . Presentation of data
- Tables
- Graphs
- Diagrams

- . Summarization of data:
- Proportions, percentage and ratio

- Measures of location
- Measures of spread
- Coefficient of variation
- Percentiles

- . Distributions:
- Skewed/Symmetrical distributions
- Normal/binomial distributions
- Distribution of sample means

- . Statistical inference:
- Chi-square test for comparing proportions and testing for an association
- Critical ratio test for both comparing proportions and sample means, (based on normal distribution)
- Student's t-test for comparing sample means (small samples)

COURSE OUTLINE

3.9 Occupational Health

3.9.1 Educational Objectives

By the end of the course the students should be able to:

- list the principle elements of the work environment
- recognize the health hazards of agricultural workers
- name the important health hazards of agricultural workers
- outline the principles of prevention of occupational hazards and diseases
- describe the role and organization of occupational health services
- describe in general terms the components and procedures of a factory inspection for health and safety purposes

3.9.2 Content

- . Introduction: occupational and environmental health
- . Hazardous agents in the working environment
- . Principles of prevention of occupational and environmental diseases.
- . Health hazards of agricultural workers
- . Occupational chest diseases
- . Occupational skin diseases
- . Prevention of occupational diseases
- . Visits to industries (cf. urban week, fourth year)

COURSE OUTLINE

3.10 HEALTH SERVICES ADMINISTRATION

This course is given in two major segments. The introduction segment is in the second year during which time there are 20 lecture sessions covering largely the principles of administration. In the fourth year there are additional lectures, seminars and the clerkship field experiences emphasizing the application of the principles and demonstrating the practical management activities.

3.10.1 Educational Objectives

By the end of the course the students should be able to:

define the concepts of organization, administration and management in society;

describe the components of an organization and their functions in relation to organizational goals;

list the functions of administration and how they are carried out;

define the concept of effectiveness and outline conditions for organizational effectiveness;

describe the technical, human and conceptual skills required of an effective administrator;

outline factors which influence interpersonal behaviour in an organization;

outline the decision-making process in relation to administrative process, the psychology of decision-making, creativity in decision-making and factors which could improve it, and team approach to administration;

describe the concept of systems approach to administration;

outline the health care system in Kenya and its organizational structure;

outline Kenya's health policy and development plans since 1964, the distribution of health services, the structure and organization of rural health services;

describe the financing of the health services in Kenya and the role of the provincial and district medical officers in budget preparation;

Compare different health care systems, such as:
fee-for-service
insurance schemes
socialized health care
community-based system

Outline the elements of integrated rural development programmes;

Outline principles of priority setting, e.g. cost-effectiveness, cost-benefit, political pay-offs;

Describe the functions of the district medical officer of health and his team;

Outline elements of an annual report, such as that of a district or a provincial health service;

Describe the principles of evaluation and feedback as related to the various levels of health care administration and effectiveness of delivery;

3.10.2 Content

- . Introduction to concepts:
 - Organization
 - Administration
 - Management
 - Organizational functions

- . The Meaning and use of effectiveness:
 - Organizational goals
 - Conditions which facilitate effectiveness
 - Conditions which hinder effectiveness
 - Organizational rules

- . Description of organizational function:
 - Technical skills
 - Human skills/interpersonal relations
 - Conceptual skills
 - Communication system and channels

- . The organizational system:
 - Components and functions
 - Decision-making
 - Creativity
 - Group formation

- . Analysis of health policy in Kenya:
 - Policies since 1964
 - The health system
 - Organizational structure
 - Distribution of health services
 - Rural health services
 - Integrated development

- . Budget preparation for the health sector:
 - Development expenditure
 - Recurrent expenditure
 - Budget estimates at the periphery
 - The political component

- . Varieties of health services :
 - Free-for-service
 - Insurance
 - Socialized
 - Community-based

- . Priority setting in health development
 - Political dimension
 - Socio-economic dimension
 - Analytical dimension
 - Epidemiological (Community diagnosis) dimension

- . Functions of the District Medical Officer of Health:
 - Clinical/professional functions
 - Administrative functions

- . Elements of an annual report:
 - Content
 - Presentation

- . Health Programme development:
 - Programme formulation
 - Programme Implementation
 - Evaluation and feedback.

COURSE OUTLINE

3.11 Introduction to field surveys

This part of the programme is introduced in the third term of the second year with six lectures covering mainly the conceptual aspects of field surveys. Then, during the two weeks preceding the first term of the third year, the students participate in planning and carrying out simple field surveys.

3.11.1 Educational Objectives

The lectures and field experience aim at introducing the students to the essentials of a field methodology for the collection of data required for community-oriented programmes. After these experiences the student is expected, with minimal assistance, to be able to:

- select a random cluster sample
- conduct a census/re-census in a given population
- collect information on a given set of variables and attributes
- record the results of a survey in the form of a simple clear report

3.11.2 Content

The learning experiences revolve around the logistics of field surveys and the collection and analysis of the following information:

Demographic and vital statistics
Food and nutrition
Incidence and prevalence of selected diseases
The environment
The utilization of preventive and curative health services

The six lectures are divided up as follows:

Introduction to field work
Objectives and content
Design of questionnaires
Interviewing techniques
Demography, nutrition and environment surveys
Prevalence of diseases
Distribution of health services
Planning, organization and equipment
Data analysis and presentation

COURSE OUTLINE

3.12 Clerkship in community Health

3.12.1 Educational Objectives

This clerkship is a one-term rotation for one third of the fourth-year class. It is intended partly to reinforce theoretical knowledge but mainly to enable the student to acquire specific professional skills in community health practise. Through a combination of learning experiences, (lectures, seminars, readings, field work and projects) the student is expected, by the end of the clerkship, to be able to:

define 'community diagnosis' and outline its essential components;

describe the necessary preparation for, and the methods of conducting a community survey;

plan and conduct a community health survey, describe a community in terms of its cultural and socio-economic characteristics;

cite the important rural health problems in Kenya;

describe the national rural health development plans;

name the different levels of health facilities for rural areas;

describe the management and staffing of rural health facilities;

describe the various health services in the different levels of health facilities;

supervise the various health workers in rural health teams;

analyse the performance of a rural health facility;

determine the health services that are especially needed by a given rural area;

describe the work of a District Medical Officer of Health and his administrative team;

describe the role of district hospitals in the delivery of rural health services;

describe environmental health problems peculiar to urban areas in general and in specific industrial settings and describe appropriate measures taken to deal with these problems;

describe legislation related to urban and industrial health;

describe the various urban and industrial health services;

identify and, where possible, deal with socio-economic factors which are affecting the community health status;

identify and use other agencies in the community to assist in the task of improving community health;

plan and carry out an investigation of a community health problem;

promote good relations between the health agency and the community;

3.12.2 Content

(a) Health Centre Practice

For this experience the students are attached to rural health centres in small groups for at least one week. While participating in the routine work of the health centre, the students are guided to use a critical approach in the situation analysis of the health centre. They are encouraged to highlight the strengths, the weaknesses and the general problems of the service. They are expected to make rural health care plans. They are also expected to make suggestions for improvement. The following is a list of headings used to guide the students in the appraisal.

- . Location within the district:
- Distance from other health facilities
- Distance from the referral hospital
- Distance from other social services

- . Physical facilities available:
 - Types of health services offered
 - Clinic-based services
 - Community-based services

- . Number of patients seen:
 - Total number per given period
 - Seasonal or other variations
- . Types of health problems encountered
- . Referral system in operation
- . Size of area served:
 - Area/Maximum radius
 - Size of population in the area

- . Administration:
 - Clinics: activities,
line of flow.
 - Staff matters.
 - Supplies: medical supplies,
administrative supplies
 - Physical plant and equipment
 - Transport
 - Finances
 - Records
 - Administrative problems

- . Human Ecology:
 - Demography
 - Socioeconomic characteristics
 - Environmental factors

- . Relations and collaboration with the community:
 - Formal
 - Informal

- . Evaluation:
 - Demonstrable achievement or other evidence of impact on the health status of the community.

The students are expected to write and submit group reports based on their health centre experiences. Topics from these reports form the basis of a series of seminar discussions. In the past, health centre seminars have covered, but have not been limited to, the following content areas:

- . Integrated maternal and child health services:
 - Antenatal care, maternity services
 - Family planning
 - Under-5 child health
 - School health
 - Expanded immunization programme

. Morbidity care:

- Types and numbers of diseases/conditions seen
- The Pharmacy
- Referral arrangements
- The Laboratory

. Nutrition:

- Malnutrition
- Food production and utilization

. Environmental sanitation:

- Housing
- Excreta disposal
- Water supplies

. Health education:

- At the health centre
- Community-based

. Administration and records:

- Staff: numbers, roles and functions
- Record-keeping
- Retrieval and use of records
- Other administrative issues

(b) General Programme

For survey work, the students are guided to plan and implement the projects. This involves designing instruments for data collection, collecting the data from the field, analysing the data collected, writing reports and presenting the results in a series of seminars.

The following content is pertinent to the intentions of the general programme. Those aspects which are not covered in the field experiences are, at least, dealt in class discussions.

Introduction to community diagnosis:

- The community
- Needs and priorities
- Problems and their solutions
- Community participation.
- Rationale and strategy.

Planning for community surveys:

- Kinds of data
- Sources of data
- Design of data collection instruments
- Sampling and sampling methods
- Interview techniques
- Public relations in survey work
- Materials, equipment and personnel

Components and activities in a community health survey:

- Demography
- Socio-economic characteristics
- Environmental sanitation
- Nutritional status
- Utilization of health services
- Prevalence of selected diseases
- Knowledge-attitude-practices (KAP).

Analysis of survey data and its interpretation:

- Presentation of data, (tables, graphs, etc).
- Summarization of data: measure of location
measures of spread
variation.

Distributions: Skewed/symmetrical
normal/binomial,
sample means

Application of statistical inferences
chi-square tests,
critical ratio test,
student's t-test

APPENDIX F

Details of Some Management Related Courses Given
to Nursing Students

UNIVERSITY OF NAIROBI

FACULTY OF MEDICINE

DEPARTMENT OF ADVANCED NURSING

DIPLOMA IN ADVANCED NURSING

1. Introduction:

Nursing education programmes in Kenya are integrated in a way that prepares a nurse capable of providing nursing care in all areas of nursing, in both the community and health institutional setting. The syllabus for this course is therefore designed on a broad base which will enable the diplomate to assume responsibility in any educational and/or administrative setting. It prepares a well rounded professional nurse possessing a combination of skills and capable of fitting into leadership positions in accordance with the greatest need in the country.

The purpose of this course is not to repeat what students have already learned, but instead to develop knowledge and skills which will assist them in making better use of previous learning. Therefore, the emphasis will be on principles and methods rather than on subject matter.

Specific objectives of the course are:

- (a). To equip nurses with knowledge and skills in teaching and administration, suited to the particular types of nursing leadership needed in East Africa.
- (b). To prepare nurses for flexibility in employment, thereby making it possible for them to work successfully in a variety of settings, e.g. hospitals, health centres, schools of nursing and midwifery and schools of auxiliary health workers

COURSE OUTLINE

ADMINISTRATION OF NURSING SERVICES AND SCHOOLS OF NURSING

1985/86

This course is designed to assist the students to apply some of the current management concepts to Nursing situations both in hospitals, Health Centres and Schools of Nursing. Focus will be on the role of the nurse as a Manager of Nursing Services, and a member of the health team.

Opportunities will be provided for the students to observe in management situations. Concentrated practical experience will be provided in both private and government hospitals.

Objectives:

At the end of the course the student will;

1. Demonstrate understanding of the basic principles and theories of administration/management.
2. Explore the applicability of these theories and principles to health care situations with specific emphasis to Nursing Services and Nursing Education.
3. Identify factors that may enhance or hinder the efficient and effective functioning of the health care systems.
4. Identify management problems encountered in the delivery of nursing services and problems in nursing education peculiar to Kenya.
5. Initiate research activities into some of the identified problem areas relating to Nursing and health care systems in general.
6. Utilize the knowledge acquired to evolve acceptable working methods.
7. Organize the necessary resources for efficient delivery of health care.

NATURE AND PATTERN OF MANAGEMENT AS A SCIENCE

PART 1

Objectives

Explore the nature and pattern of management as a science and relate to management practices in health care systems.

Content

UNIT I Management Theories:

- The classical management theories and their limitations.
- Scientific management theories and their limitations. (Taylor).
- Classical organizational theory and its limitations (Fayol).
- Principles of Management. (Fayol)
- Behavioural and systems schools (Group dynamics).

UNIT II The Bureaucracy/Rationality School

(Max Weber)

- Unity of command
- Span of control

UNIT III Human Relations movement:

- The Hawthorne Experiments (Alton Mayo)
- Formal and informal organizations
- Motivation theories

Need Theory (Maslow)

Two factor Theory

(Herzbergs)

- Existency Theory (Alderfers)
- Expectancy Theory
- Equity Theory
- Reinforcement theories

UNIT IV The Social Systems Approach:

The general systems theory

Open and closed systems

Health care systems

UNIT V Decision Theories:

Vroom and Yetton

Rensis Likert (Linking Pin)

Simon (facts and values)

Decision making tools

Decision trees

Linear Programming

PERT

UNIT VI Theory and Concepts in Management:

Organization Designs

Staff/Line concept (organizational chart)

Decentralization: Co-ordination

Departmentalization

Matrix Organization

Specialization

Management Information Process

UNIT VII Human Behaviour in Organizations

(a) Leadership in Management

- Leadership Theories
- Sources of leadership, power and authority.

- Leadership and motivation
- Leadership as direction,
as representation
- Situational Leadership

(b) Behavioural Change for effectiveness

- The process of change
- Approaches to change
- Integrating individual's and organizational
goals and objectives
- Inevitability of change (pressures and forces)

PART II MANAGEMENT IN HEALTH CARE ORGANIZATIONS

Objectives:

1. Apply principles/theories of management to
health care situations.
2. Identify factors that enhance or hinder the
delivery of health care

UNIT III MANAGEMENT PROCESSES APPLIED TO NURSING MANAGEMENT
AT EXECUTIVE, MIDLEVEL & OPERATIONAL LEVEL

CONTENT

(a) Planning

- Meaning and need for planning
- Types of plans
- Time management and planning
- Planning patient/client care
- Resources planning

(b) Organizing for Patient/client Care

- The meaning and process
- Steps in organizing
- Organizational chart
- Formulating philosophies, policies, objectives and procedures for patient/client care
- Standards of care
- Job descriptions
- Work plans
- Staffing considerations and staff deployment
- Team versus individualized care
- Work shifts
- Role differentiation

(c) Co-ordinating Care

- The co-ordination process
- The purpose of co-ordination
- Effective versus ineffective co-ordination
- Span of Control and Co-ordination
- Work of committees and task forces in coordination
- The role of the nurse as a primary co-ordinator
- Problem solving/Decision making

(d) Controlling.

Meaning of controlling

Elements of controlling

Control methods used in health care

Establishing a control system

Setting standards and criteria

(e) Supervision and Directing

- The role of the nurse supervisor
- Directing nursing activities in hospitals departments, wards and community health organizations.
- Delegation and accountability
- Effective delegation
- Evaluation of patient care activities
- The teaching role of the supervisor
- Clinical teaching

Use of the following quality assurance

- Nursing care plans
- Nursing rounds
- Records
- Written reports
- Incident reporting
- Nursing Audit
- Check lists
- Nursing conferences
- Staff/patient questionnaires - Procedure manuals
- Education and teaching.

(f) Personnel Functions of the Nurse Supervisor

- Recruitment of appropriate staff.
- Induction
- Training and development of staff

- Staff appraisal
- Continuing education and inservice training
- Deployment of staff
- Transfers, promotion, demotion
separation
- The disciplinary process

(g) Budgeting in Health Care Organizations

- The process
- The types of Budgets
- The role of the Nurse Supervisor

TEACHING/LEARNING METHODS

1. Lecture/Discussion of various theories and principles of management/Administration.
2. Analysis of theories, principles and concepts as they relate to nursing situations.
3. Observation visits to selected health care institutions.
4. Concentrated practical experience in nursing care settings
5. Reading assignments
6. Mini research projects related to identified management problem areas.

Evaluation: Coursework 30%

Grades will be awarded as follows:

1. One test consisting of 3 questions set from the terms work.

2. A Paper

Analysis of Management theories and application to Nursing situations.

Scientific Management theory and the Human Relations Approach. (20%)

3. Bibliography Cards (10%)

Analysis of readings from:

(a) Non Nursing Books/Journals focusing on:-

- Leadership
- Motivation
- Human Behaviour
- Change

(b) Nursing Books/Journals on:

- Staffing
- Supervision
- Quality Assurance in Nursing
- Continuing Education

3. Group Work assignment

Groups of 4 will in two wards at the KNH look at various aspects of management processes, and present their findings in writing and also share these with the class.

(a) All groups will analyse the information system in the assigned wards. Specific focus will be on:

- The types of information reaching the ward level- (for patients or staff or general)
- The origin of the informational subject matter
- The channels/media used in transmitting the information
- The target receiver.

- Time taken to reach the receiver
 - How the information is received (perception of the receiver)
 - Interpretation of the information and by who
 - Decision making process and action taken on the information
 - Time within which decisions are made
 - Identify barriers along the system and give suggestions how these barriers can be overcome to allow effective transmission
- (b) Two groups will analyse the staffing pattern in the assigned wards and compile one report and share their findings with the class. They will look at:
- Types of staff and their number
 - Factors influencing staffing
 - Considerations for staff allocation for specific tasks in the ward
 - Coverage by shift
 - Job descriptions and how they relate to actual functions performed
 - Non nursing duties performed by Nursing staff
 - Does the current staffing meet all the needs of service and care?
 - The role of students in service and care provision.
 - Factors that influence/hinder effective functioning and how these can be remedied
- (c) Two groups will analyse the leadership role of the Nurse Administrator at ward level, focus on:
- Identified role of the leader
 - Expected role of the leader
 - Leadership styles in use and their effects on staff performance, morale, and motivation
 - Authority and power structure
 - Responsibility levels
 - Professional accountability - for patient care

Delegation and how used
Supervisory principles used and their effect on
staff performance

State how leadership can be used more effectively.

5. One Term Paper - A researched paper on one of the following:

- (a) The role of Continuing Education for Health Workers with specific reference to Nursing Professionals. Use the information to:

Prepare a 1 hour continuing Education session on any topic for Registered Nurse/Midwife working in a Maternity Unit. Include objectives, learning activities methods to be used and resources.

- (b) The nurse Administrator as the planner, organizer, co-ordinator and evaluator of patient/client care: (Unit level) draw up an evaluation programme on "Interpretation and use of Nursing observations" (include references and your own observations in the clinical area.

- (c) Pick one management problem that adversely affects patient/client care and plan for change. (Analyse the problem according to literature). Your plan for change should include objective, procedures, resources and how you foresee this change affecting the service.

COMMUNITY HEALTH NURSING II

COURSE OUTLINE

1985/86

60HRS THEORY
120HRS PRACTICAL

Community Health Nursing II derives its base from all the courses taught and the concepts learned during the first year and specifically from content covered in Community Health Nursing I, Biological Sciences, Sociology and Anthropology, Educational methodology and Growth and Development. It will be related a lot to other courses this year especially Nursing Research, Mental Health and Psychiatric Nursing and Administration of Nursing Services.

This course aims at providing opportunities for the learners in their second year to acquire indepth knowledge and develop skills in applying the nursing process while providing comprehensive community centered care to individuals by utilizing available community and government resources with the optimum participation from community members.

Course Objectives:

1. To examine factors that influence community health delivery systems and identify their role in enhancing or hindering the provision of effective community health care.
2. To explore the concept of primary health care and outline the professional community nurse's role and contribution towards realizing this concept.
3. To explore the health team concept and participate in health team activities in various settings.
4. To identify the health problems of categories of community members and examine and utilize the resources available in the community for their solution.
5. To utilize the knowledge of epidemiology in measuring the extent of problems in a specific community.
6. To collaborate with and assist communities to plan and implement community-based health care programmes which have emphasis on community participation by applying appropriate methodology.
7. To develop ability to identify groups in the community that are in need of curative, preventive or promotive care and organize and provide appropriate services to meet their nursing needs.

UNIT I DEVELOPMENT OF PUBLIC HEALTH AND SYSTEMS OF COMMUNITY

HEALTH CARE

Objectives:

At the end of the Unit the student should be able to:

1. Review historical trends in the development of Public Health and Public Health Nursing.
2. Examine some of the ecological factors and how they influence health care planning and delivery systems.
3. Examine critically health care delivery systems in Africa with specific reference to East Africa and Kenya and how medical and non-medical factors affect the provision and utilization of this care.
4. Examine the health care delivery systems in Kenya with specific reference to their strengths and weaknesses.
5. Identify the differences between urban and rural community organizations and community health care systems.

C O N T E N T

1. Historical trends in Community Health (Public Health) and Community Health Nursing (Public Health Nursing).
2. Concepts of Community - Rural and Urban Communities in Kenya.
3. Health Care Delivery Systems in some Western Countries, Eastern Africa and Kenya.
 - 3.1 Factors that affect the form and structure of Health care Delivery systems:
 - National Health Policies
 - Socio-economic
 - Political
 - Resources available
 - Medical Factors e.g. disease patterns, morbidity, mortality e.t.c.
 - 3.2 Health care systems in some developed and Eastern African countries

3.3 Kenyan Health Delivery System

Policies and Objectives

Financing

Agencies providing Health Care

Traditional Health Practitioners and their role

Private & Church Organizations (NGO's),

Government

3.3.1 The District Focus and Primary Health Care (PHC)

The District Focus concept: Review

The Primary Health Care concept: Review

Organization & Administration of Health

Services in the Urban Setting e.g. Hospitals,

Health Centres

Dispensaries

Clinics

Primary Health care (PHC)

Community-Based Health

Care (CBHC)

The Rural Health Unit Concept

Integrated Health Services and the Essential
Elements of Health Care in PHC

Mobile & Outreach Services

CBHC Approach to Rural Health Care

Community Participation Concept

Appropriate Technology

Factors influencing utilization of Health
Services and coverage in Rural Communities

Traditional Practices

Cultural beliefs, values, attitudes
e.t.c.

Distance or accessibility

Methods of communication

Political

Socio-economic

Concept of Health/appreciation of health
as an asset, determining response to
illness

The role and behaviour of staff in the
health care setting

Population size

Perceived efficacy of care

Individual Judgement

3.3.2 Research in community Health Nursing relative to PHC.

UNIT II MODELS OF COMMUNITY ORGANIZATION AND COMMUNITY
HEALTH TEAMS

Objectives

At the end of this unit the student should be able to:

1. Demonstrate understanding of processes of community organization and their effect on health practices.
2. Identify how these processes enhance or hinder community health activities and apply this in rural health practice.
3. Identify the role of village health committees and how they are formed.
4. Explore the health team concept and how it affects the delivery of health care especially to rural communities.

C O N T E N T

1. Models of community organization.,

The community development approach
The social planning approach
The social action approach
Community organization (Kent's model)
Warren's Model for assessing communities
Explorations for change
Strengths and weaknesses of these models in our familiar settings
Baraza and Harambee in Kenya

2. The Health Team Concept

- Definition
- Historical development
- Team composition & Roles of Team Members
- Leadership and goals of Teams at each level
- Communication channels
- Education of teams for Rural Health Practice

3. The Village Health Committee and How Used

- Formation and composition of the committee
- The role of the committee in community based Health care/PHC

UNIT III KEPI PRINCIPLES AND SERVICES:

MID-LEVEL KEPI MANAGEMENT

Objectives:

At the end of the course, the student will be able to:

1. Describe the principles and aims of KEPI, and be able to use the knowledge gained for effective supervision and improvement of current immunization programmes.
2. Plan, organize, implement, monitor and evaluate immunization activities in her/his areas of responsibility in line with the objectives of primary health care.
3. Recognize the individual contribution of each member of the health team in the management of successful immunization programmes for acquiring better coverage.
4. Identify potential obstacles to carrying out effective immunization activities, their causes and define effective and efficient measures for their solution.

CONTENT A INTRODUCTION

B MODULES

1. Module I - Allocate Resources
2. Module II - Manage the Cold Chain System
3. Module III - Conduct Vaccination sessions
4. Module IV - Demonstration on Cold Chain Equipment & Vaccination Session
5. Module V - Evaluate Vaccination Coverage
6. Module VI - Supervise Performance
7. Module VII - Provide Training
8. Module VIII - Conduct Disease Surveillance
9. Module IX - Ensure Public Participation.

UNIT IV APPLICATION OF THE NURSING PROCESS TO COMMUNITY HEALTH

NURSING

Objectives

At the end of Unit the student should be able to:

1. Identify and analyse the health needs and problems of various groups in the community and set strategies for their management both in Urban and Rural settings.

2. Discuss the role of the Community Health Nurse following a natural disaster, floods, fire, mass accidents, epidemics, riots etc.
3. Identify health needs and problems of workers and their families, in industries, agricultural farms, factories, forests.
4. Provide Health care in schools and occupational settings.

C O N T E N T

1. Review of the Community Health Nursing Process
2. Application of the Community Health Nursing Process to the needs and problems of various groups in the community e.g.
 - Infants
 - Preschoolers (under fives) - clinics, nurseries
 - School children - School Health
 - Mother of child bearing age
 - The aged
 - The chronically ill e.g. - diabetics, hypertensives lepronators, tuberculous etc.
 - The handicapped - mentally retarded, mentally ill, physically disabled (the blind, deaf and dumb, cripple).
 - Workers - Occupational Health
 - Disaster Striken
 - Dealing with natural disasters,
 - Planning and organizing emergency relief service
 - Use of international and national agencies
 - Red Cross, Fire Brigade, St. Johns Ambulance etc.
 - Famine Relief Organizations
 - Freedom from Hunger Organizations
 - Community efforts - Harambee/effort.
 - AMREF (African Medical Research & Education Foundation)/Flying Doctors Services
3. Assessing Needs and Problems in rural communitess
 - Community diagnosis assessment through field surveys
 - Preparation for a field survey
 - Community - oriented action
 - Nursing intervention
 - Evaluation of Nursing Intervention

UNIT IV ORGANIZATION AND MANAGEMENT OF COMMUNITY HEALTH

NURSING

Objectives:

At the end of the unit the student should be able to:

1. Apply managerial principles in planning, organizing and implementing community health nursing programmes.
- 2, Analyse the supervisory role of the Community Health Nurse both in Urban and Rural settings.
3. Supervise community health nursing programmes in rural and urban settings.
- 4 Evaluate community health nursing programmes.

CONTENTS;

1. Planning, organizing, implementing and evaluating community health nursing programmes in urban and rural settings.
2. The role of a supervisor of community health nursing services at all levels.
3. Evaluation of standards of care using different tools.
 - Planning & Organizing and evaluation activities
 - Primary, community-based/health care versus hospital base.
 - School health services, Industrial health services
 - Mobile services.
 - Outreach services etc.

TEACHING/LEARNING METHODS, ,FOR THE COURSE

1. Lecture/Discussion
2. Project assignments
 - (a) Independent study
 - (b) Individual
 - (c) Group
3. Observation visits
 - A city clinic, dispensary & Health Centre
 - A rural Health Unit
 - Institutions for the handicapped & other groups in the community

4. Practice sessions
5. Group and individual conferences
6. . Sharing of assignments in class-presentation & discussion
- 7 3 weeks practical work in a selected rural health unit.

Evaluation of the Course

Written Final Exam - 70%

Continuous Assessment - 30%

1. Grades will be given on written work:

- a) 1 or 2 Term papers - 1st term, 2nd Term
- b) Individual assignments
- c) Group presentations
- d) Individual/group presentations on work done with families and community
- e) Community Diagnosis and Action report.

2. Tests: 1 in First Term

1 in 2nd Term

Practical Experience

- (a) Work in Health Centres in the city to identify the roles each staff member plays.
- (b) Participate in health education sessions.
- (c) Work in a Rural Health Unit, providing integrated health services to the communities.
- (d) Planning, organizing and carrying out community surveys by involving community leaders and community members.

Appendix G

Selected Statistics on the College of Health Sciences

Table GI
Student Enrolment 1985/86

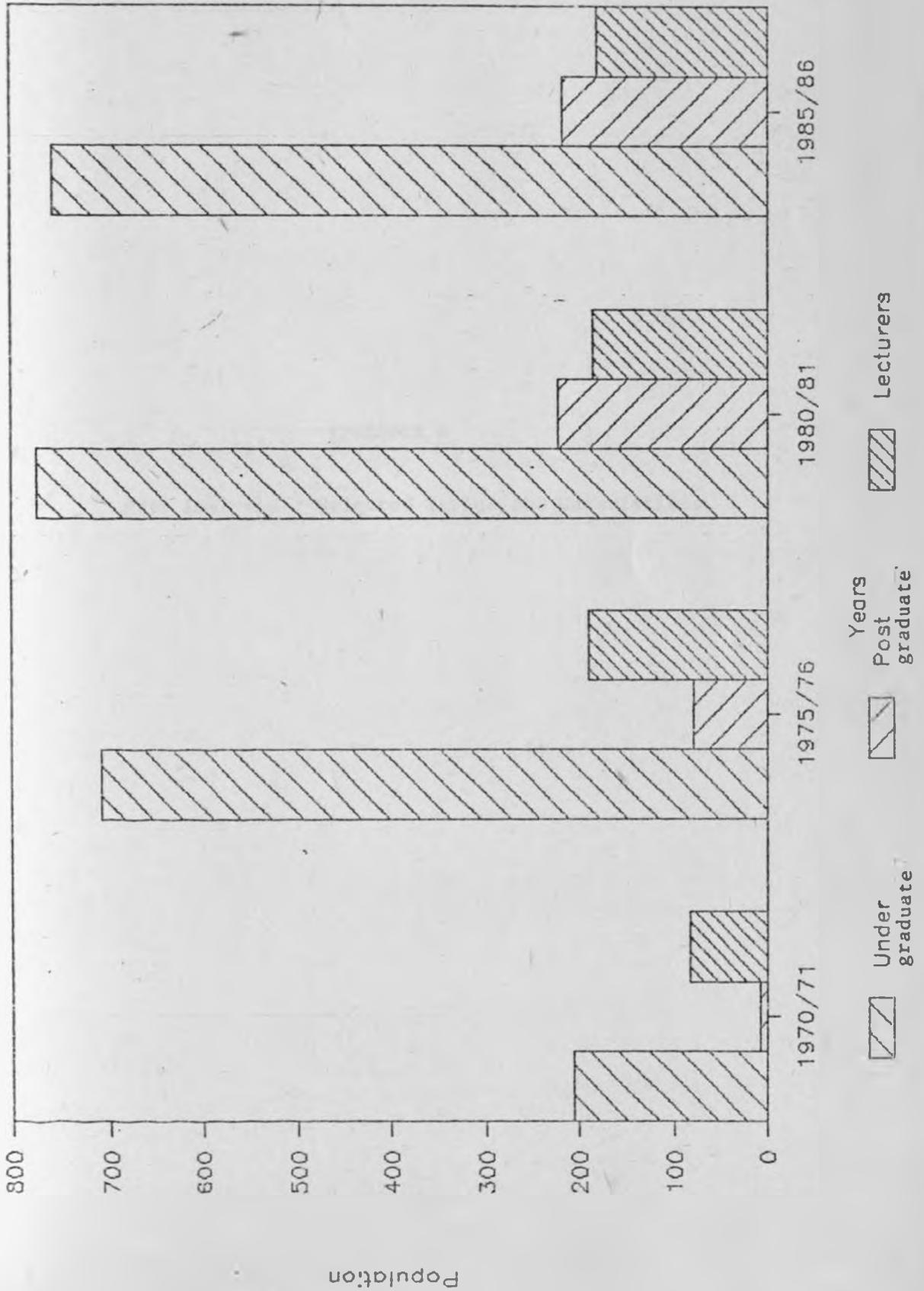
Course	Year of Study					TOTAL
	1	2	3	4	5	
M.B.Ch.B	115	95	110	111	96	527
B.D.S	16	23	14	7	*	60
B. Pharm	34	25	28	29	*	116
Dip. Advanced Nursing	24	27	**	**	**	51
Total (undergraduates)						754
Total (postgraduates)						216
Total Student Population						970

* 4 year course

** 2 year course

Figure G1

Trends in Student Enrolment and Teaching Staff Levels for Selected Years.



APPENDIX H

Data Analysis : Selected Tables and Calculations

Table H1

Relative Importance Given to Management Subjects

	Students			Lecturers	Lecturers & Students
	Nurses (N=6)	Med (N=14)	Total (N=20)	(N=19)	(N=39)
Equal importance	100	28.6	50	15.8	33.3
Less importance	-	71.4	50	63.2	56.4
No importance	-	-	-	21	10.3

Table H2

Rating of Selected Features of Management Subjects

Features of management courses	Rating (increasingly positive) →											
	1			2			3			4		
	Nur	Med	Total	Nur	Med	Total	Nur	Med	Total	Nur	Med	Total
a. Understanding of lectures	-	-	-	-	42.9	30	100	57.1	70	-	-	-
b. Clarity of illustrations and examples	-	-	-	33.3	28.6	30	16.7	64.3	50	50	7.1	20
c. Relevance of illustrations and examples	-	-	-	-	-	-	83.3	71.4	75	16.7	28.6	25
d. Time spent on subjects	16.7	35.7	30	83.3	64.3	70	-	-	-	-	-	-
e. Interest in courses	-	-	-	-	28.5	20	50	71.5	65	50	-	15

Nur = Nursing students (N=6)

Med = Medical students (N=14)

Total = Total no. of students (N=20)

(All figures expressed as percentages)

Table H3

Mean Scores on Rating Scale

Course feature	Mean score		
	Nur	Med	Total
a. understanding of lectures	3	2.6	2.7
b. clarity of illustrations and examples	3.2	2.5	2.9
c. relevance of illustrations and examples	3.2	3.3	3.3
d. time spent on subjects	2.0	1.6	1.7
e. interest in course	3.5	2.7	3

Calculation of mean scores on rating scale: Example - understanding of lectures

Rating (xi)	No. of respondents (fi)					
	nurses (xi)fi		med. (xi)fi		total	(xi)fi
1	-	-	-	-	-	-
2	-	-	6	12	6	12
3	6	18	8	24	14	42
4	-	-	-	-	-	-
Total	6	18	14	36	20	54

mean score:
Nursing students = $\frac{\sum k_i f_i}{\sum f_i} = \frac{18}{6} = 3$

mean score:
Medical students = $\frac{\sum k_i f_i}{\sum f_i} = \frac{36}{14} = 2.6$

mean score:
for all students = $\frac{\sum k_i f_i}{\sum f_i} = \frac{54}{20} = 2.7$

Table II: Rating of Necessity of Management Education Objectives

Objective	Very necessary			necessary			Not necessary		
	L	P	T	L	P	T	L	P	T
a. broaden intellectual base	31.6	10	20.5	52.6	85	69.2	15.8	5	10.3
b. develop analytical skills	36.8	25	30.8	63.2	75	69.2	-	-	-
c. develop specific attitudes	15.8	25	20.5	73.7	60	66.7	10.5	15	12.8
d. improve general problem solving/decision making capability	73.7	80	76.9	26.3	20	23.1	-	-	-

L= Lecturers (N=19)

P= Practitioners (N=20)

T= Lecturers and practitioners (N=39)

Table H5 Management Topics

Management Field	Response (%)								
	Very necessary			necessary			Not necessary		
	L	P	T	L	P	T	L	P	T
A. Policy and Development									
.national health policy	73.7	60	66.7	26.3	40	33.3	-	-	-
.structure and functions of the Ministry of Health	79	65	71.8	21	30	25.6	-	5	2.6
.health institution strategy and planning	57.9	70	64.1	36.8	30	33.3	5.3	-	2.6
.image, climate and communications in organizations	42.1	30	35.9	47.3	65	56.4	10.5	5	7.7
.organizational and management structure	57.9	45	57.3	36.8	50	43.6	5.3	5	5.1
.project management	42.1	30	35.9	57.9	55	56.4	-	15	7.7
.organization and environment	47.3	25	35.9	42.2	70	56.4	10.5	5	7.7
B. Financial Management									
.accounting and financial management	21	25	23.1	63.2	50		15.8	25	20.5
.management accounting	5.3	10	7.6	57.9	35		36.8	55	46.2
.budgeting: institutional and national	47.3	35	41	31.6	50		21.1	15	18
.investment planning and	5.3	20	12.8	57.9	50		36.8	30	33.3
.financial control	52.6	35	43.6	26.3	55		21.1	10	15.4
.Treasury financial control	5.3	5	7.7	63.1	50		31.6	40	35.9
C. Administration									
.office organization, administration and systems	36.8	45	41	52.6	50		10.6	5	7.7
.office layout and equipment	21.1	5	12.8	52.6	50		26.3	45	35.9
.health and safety at work	57.9	40	48.7	42.1	45		-	15	7.7
.asset management	5.3	-	2.6	73.7	45		21.1	55	38.5
.office productivity	15.7	15	15.4	63.2	50		21.1	35	28.2
.administrative staffing and control	42.1	30	35.9	52.6	65		5.3	5	5.1
.management of consulting practice	26.3	20	23.1	73.7	70		-	10	5.1

L= Lecturers (N=19)

P= Practitioners (N=20)

T= Lecturers and practitioners (N=39)

Table H5 (Cont)

Management Field	Response %								
	Very necessary			necessary			Not necessary		
	L	P	T	L	P	T	L	P	T
D. Human resources management									
.human resources planning	31.5	25	28.2	63.2	70	66.7	5.3	5	5.1
.industrial relations	15.8	25	20.6	63.2	60	61.6	21	15	17.8
.job evaluation + grading	15.8	15	15.3	68.4	80	74.4	15.8	5	10.3
.wage and salary structure	-	15	7.7	63.2	65	64.1	36.8	20	28.2
.search, selection and recruitment	21.1	5	12.8	57.8	55	56.4	21.1	40	30.8
.appraisal and assessment systems and procedures	21.1	30	25.7	57.8	55	56.5	21.1	15	17.8
.management and staff development and training	42.2	30	35.9	47.3	50	48.7	10.5	20	15.4
.organization and job structuring	15.8	5	10.3	63.2	90	76.9	21	5	12.8
.behavioural sciences	63.2	30	46.2	36.8	70	53.8	-	-	-
.management of change	31.6	25	28.2	47.3	75	61.5	21.1	-	10.3
.group dynamics/team work	57.9	31.6	43.6	31.6	70	51.3	10.5	-	5.1
.supervision	78.9	15	46.2	21.1	85	53.8	-	-	-
.delegation	52.6	30	41.1	36.8	70	53.8	10.5	-	5.1
.setting up and chairing meetings	36.8	15	25.6	52.6	80	66.7	10.5	5	7.7
.use of committees	47.4	20	33.3	47.3	75	61.5	5.3	5	5.2
E. Management Science/ Information Technology									
.statistical analysis	47.3	20	33.3	42.2	70	56.4	10.5	10	10.3
.decision analysis	36.9	25	30.8	47.3	65	56.4	15.7	10	12.8
.operations research	26.3	15	20.7	57.9	65	61.5	15.8	20	17.8
.computer appreciation	15.8	15	15.5	63.2	55	56.9	21	30	25.6
F. Miscellaneous									
.management of emergencies	57.9	80	69.2	31.6	20	25.6	10.5	-	5.1
.marketing of medical services	26.3	20	23.1	63.2	60	61.5	10.5	20	15.4
.public relations	73.7	40	56.4	26.3	60	43.6	-	-	-
.stock control	26.3	40	33.3	52.6	50	51.3	21.1	10	15.4
.transport management	10.5	45	28.2	58.4	50	58.9	10.5	5	12.8
.distribution systems	21	30	25.6	63.2	65	64.1	15.8	5	10.3

APPENDIX I

List of Some of the Persons Contacted During the Study:

From the College of Health Sciences, University of Nairobi

1. Prof. N. Bwibo Principal, College of Health Sciences, Executive Committee member, Kenya Paediatric Association and immediate past Chairman, Kenya Medical Association.

- Prof. T. Ogada Dean, Faculty of Medicine, Chairman, Association of Physicians of East and Central Africa.

- Prof. B. Mbindyo Chairman, Dept. of Orthopaedic Surgery

- Dr. J. Gekonyo Chairman, Dept. of Community Health

- Mrs J. Wachira Chairman, Dept. of Advanced Nursing.

- Dr G. Muriuki Chairman, Dept. of Pharmacy

- Dr C. Wagaiyu Chairman, Dept. of Dental Surgery and Chairman, Kenya Dental Association.

- Dr R. Njogu Chairman, Dept. of Biochemistry

- Dr J. Kitonyi Chairman, Dept. of Diagnostic Radiology.

- Dr J. Kimani Chairman, Dept. of Human Anatomy

- Dr K. Kimani Chairman, Dept. of Medical Physiology.

- Dr J. Meme Chairman, Dept. of Paediatrics

- Dr S. Acuda Chairman, Dept. of Psychiatry.

- Dr S. Ojwang Senior Lecturer, Dept. of Obstetrics and Gynaecology.

- Dr S. Likimani Senior Lecturer, Dept. of Dental Surgery.

- Mrs R. Gatere Lecturer, Dept. of Advanced Nursing

Mrs J. Musandu Lecturer, Dept of Advanced
Nursing.
Treasurer, National Nurses
Association of Kenya.

From other Health related Organizations

Prof. R. Holmberg Executive Director, The Aga Khan
Hospital, Nairobi.

Dr M. Migue Director of Training, African
Medical Research and Education
Foundation.

Dr P. Tukei Director, Virus Research Centre,
Kenya Medical Research Institute

Dr K. Githahu Chief Medical Officer, University
of Nairobi Health Services.

Mrs J. Muriithi Education Officer, Nursing Council
of Kenya

Dr S. Kanani Senior Deputy Director of Medical
Services, Ministry of Health.

Dr Abdallah Chairman, Kenya Medical
Association

Dr M. Davies Country Coordinator, World Health
Organization.

Mr. E. Lubembe Deputy to Chief Personnel Officer
Kenyatta National Hospital.

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