Med

EVALUATION OF DISTRICT HEALTH MANAGEMENT TEAMS IN ADDIS ABABA

A THESIS SUBMITTED TO THE SCHOOL OF THE GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH

By:

Mahdi Bekri, M.D.

May 22, 1993

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

EVALUATION OF DISTRICT HALT MANAGEMENT TEAM IN ADDIS ABABA

By

Mahdi Bekri, MD

Department of Community Health
Faculty of Medicine, Addis Ababa University

Approved by the Examining Board

Dr. Derege Kebede
Chairman, Department
Graduate Committee

Dr. David Zakus
Advisor

Dr. Pierre Duplessis
Examiner

Dr. Tesfaye Shiferaw
Examiner

Ato Gebre-Emmanuel
Examiner

TABLE OF CONTENTS

		Page
1.	LIST OF TABLES	ii
2.	LIST OF FIGURES	iii
3.	ACKNOELEDGEMENT	iv
4.	ABSTRACT	v
I.	INTRODUCTION	1
II.	STUDY OBJECTIVES	.4
III.	LITRATURE REVIEW	5
IV.	METHODS	22
V.	RESULTS	31
VI.	DISCUSSION	47
VII.	CONCLUSIONS AND RECOMMENDATIONS	51
VIII.	REFERENCES	53
IX.	ANNEXES	58

LIST OF TABLES

Page

IV.1 FUNCTIONALITY SCORING 26

V.1 THE SIZE AND PROFESSIONAL COMPOSITION OF DHMTS 32

V.2 CHARACTERISTICS OF FUNCTIONAL AND NONFUNCTIONAL DHMTS 37

V.3STRENFTH OF ASSOCIATION FOR SOME DHMTs CHARACTERISTICS 41

V.4 MEAN SCORES OF GROUP PROCESS FOR EACH DHMTS . 44

V.5 THE MEAN EPI COVERAGE OF THE DISTRICTS 37

LIST OF FIGURES

Page

IV.1 THE STUDY DESIGN 24

V.1. THE AGE DISTRIBUTION OF THE DHMT MEMBERS . . . 34

V.2. FUNCTIONALITY SCORES OF DHMTS 35

ACKNOWLEDGEMENTS

I am very much indebted to my advisors, Drs. David Zakus and Asfaw Desta, for their guidance to my work and every possible assistance they provided to me during most of my study period.

All other staff of the McGill Ethiopia Community Health Project and the Department of Community Health of AAU are also duly acknowledged for their invaluable support in the design, conduct, and write up the study.

My wife Dr. Azeb Yusuf was also very helpful in sharing her views about the study and encouraging me to proceed on it.

I am also very thankful to my brother Zeydan Bekri and to my friend Khalid Yusuf for the invaluable help and advice during my study period.

The financial support without which this study would not have been accomplished was provided to me by the International Development Research Centre (IDRC).

Mahdi Bekri, M.D.

May 22, 1993

ABSTRACT

This study, a cross-sectional census survey with a case control analysis, assesses various determinants of functionality of District Health Management Teams (DHMTs) in Addis Ababa. The questionnaire survey component was carried out among 16 DHMTs from December, 1992 to February, 1993. The objectives of the study were to describe the work of the various health teams and classify them as functional ir nonfunctional. The findings revealed that eight of the DHMTs were performing 60% or more of the activities mentioned in their job description, this being the cut-off point for determining functionality. The criterion for functionality was then further strengthened, limiting functionality to those teams who performed 64% of their required activities, leaving seven in this category. Comparing these with the five nonfunctional teams ($\leq$ 56% of their required activities) various associations between structural team characteristics and internal team interaction processes were found. DHMT functionality was positively associated with the academic qualifications of the team leader (OR=14.1 with 95% CI 14-259), with the presence of job descriptions for the team members (OR=4.0 with 95% CI 3.8-57.3), with the size of the team (OR=10 with 95% CI 9.98-128.82), and with the presence of research activities (OR=5 with 95% CI 4.1-106.4). Among the team

interaction process that were found to be important to functionality (at $P<0.05$) were the clarity of objectives, knowledge of each others roles, analysis of experience, good communications, a feeling of belonging, and respect for differences. These findings demonstrate the importance of structural and interaction processes for the appropriate development of health management teams and the further strengthening of the district health care system.

I. INTRODUCTION

During the last few decades the mismatch between health care provisions and population distribution had increased the awareness of countries for the need of a new strategy. As a result, the primary health care concept was born. The primary health care concept was adopted by the W1orld Health Assembly as an approach of achieving Health For All by the Year 2000 (HFA/2000) in 1978. After a decade of its implementation the observed achievements were minimal in most countries and weakness in management particularly at district level was identified as the greatest obstacle (23.35).

In May, 1986, at the 39th world health assembly held in Geneva, passed a resolution urging member states to lay particular emphasis an district health system based on PHC. The resolution was a call for action as a result of the growing obstacles due to weak management of the health care delivery system particularly absence of decision making and support structure at district level (10).

A district very from one country to another but from an organizational point of view many have similar feature. The population could very between 200,000 - 500,000 though it could be as low as 100,000 in sparsely populated countries or as high as one million (6,31).

The district health management team is a key element

in the thinking behind the a district health system based on PHC Primary Health Care is a comprehensive system of care, prevention, treatment, community development, management and organization. The planning, organization, monitoring and evaluation of the activities by multi structure organization constitute the key strategies for PHC development. Hence strengthening the district health management teams becomes indispensable for the effective delivery of PHC (7,10,18).

The strong tradition of health care management teams was established in Ethiopia from the early development of the Gondar Public Health College team training approach had gradually faded in the 1970s for a variety of reasons. However the concept of health management teams revived few years after PHC implementation. In the mid 1980s PHC review was done in Ethiopia and one of the recommendation was the establishment of the district health service system. Thus in march 18, 1986 the Ministry of Health inaugurated the first district health managers training course in Addis Ababa. The aim of the programme was training physician to assume leadership and organize district health management teams (5).

The concept of district health management team has been declared as official government policy in Ethiopia and has been proceeding for the last six years yet their is no systematic information available from actual

experience of the district health management teams which is necessary so as to be able to identify their strengths and weakness and learn from their experiences, such new information is needed to begin implementing improved health services at the basic districts (known as Woreda) level of Addis Ababa. Moreover experiences and lessons learnt here may help in addressing similar problems in different regions of the country.

II. OBJECTIVES

II.1. General Objective of the Study

The general objectives of the study are two. The first to describe the situations activaties of health teams, and the second is to elucidate the determinante of the health management teams functionality by comparing the attributes of functional teams with those of nonfunctional ones.

II.2 Specific Objectives

II.2.1. To determine the level of functionality of the district health management teams in Addis Ababa.

II.2.2. To asses the level of management training of the district health management team leaders with respect to functionality.

III. LITERATURE REVIEW

III.1. Historical Development of District Health Management

Health care today is not the simple matter it was earlier in this century involving single clinicians and individual patients. In 1932, the Committee on the Costs of Medical Care (CCHC), whose members were prominent in the fields of medicine, public health and social sciences in the United States, recommended the delivery of both therapeutic and preventive medical services to a "defined patient population" and to link it with regional hospital centres. This measure was taken to provide more efficient total health care than could the disorganized efforts of solo general practitioners at the time (1).

In the 1950s and early sixties the advances in medical knowledge and technology, the increasing number of sub-specialities among health care providers, and the broadening concepts of health and illness all served as a moving force in the development of the notions of "comprehensive care" and "team care" in the developed countries, particularly the United States (1, 2, 3). Although the programs varied, comprehensive care as an organizational and service concept was described as "a facility, or intimately linked group of facilities enabling individuals and families to obtain initial and continuing health care" (4), which is to be provided

through health facilities known as neighbourhood health centres. For the United States, Canada, Finland, Hungary and Netherlands this development took place in the 1950s and 1960s. For Indonesia, Thailand, and Malaysia the period was the early 1970s. On the other hand, for many other developing countries like Burkina Faso, Papua New Guinea, Nigeria and Ethiopia, the struggle for the development of their health infrastructure still continues (5).

Though many efforts have been made by many countries and the WHO to improve and extend services, large numbers of people, particularly in the rural areas of developing countries, remain with no access to health care services. The attempt to deliver health care through a single sector and the lack of involving communities in the management of their own health have been partly blamed for this problem (6, 7). Eventually, from the dissatisfaction of these strategies, the concept of Primary Health Care (PHC) evolved as the major strategy of achieving the goal of "Health for All By The year 2000 (HFA/2000)" as declared at a high profile conference in Alma-Ata, Kazakhstan, in 1978 (8).

Primary health care, as outlined at the Alma-Ata conference, calls for three developments: universal availability of essential health care to individuals, families and populations according to need; involvement

of communities in the planning, delivery and evaluation of such care; and an active role for other sectors in health activities (5, 8).

The potential for implementation of PHC, therefore, has been around for the last fifteen years. In the mid 1980s a PHC review was carried out in 90% of WHO member countries. Besides a little undeniable progress in some programme elements, most of the fundamental principles of PHC remain only rhetoric in many countries. Few African countries were able to sustain, throughout 1980s, the initial pace of health development. This PHC evaluation identified the greatest obstacle to achieving HFA/2000 as weaknesses in the planning, organization and management of the health systems, particularly at the district level (5,6,9).

In 1985, the health ministers of the African Region of WHO decided to strengthen their national health systems. It was agreed that "community based health and related activities which are the foundation of economic and social development must be sustained by appropriate operational, technical and strategic support at the local (district), intermediate (province/region), and central levels, respectively" (8). This is known as the three phase health development scenario. The scenario makes the district "the cornerstone of the organizational framework for implementing the primary health care

approach" (8). Involving people living within the district, intersectoral collaboration, and affordable technologies provided by qualified members of a district health team constitute the key strategies adopted (8). Then in May 1986, the 39th World Health Assembly adopted a resolution calling on all member states to place more emphasis on strengthening district health systems based on primary health care (10).

But, just what is a district health system and how may it be used effectively to improve primary health care? These questions have been answered by the WHO Global Programme Committee in 1986 as follows.

"A district health system based on PHC is a more or less self-contained segment of the national health system. It comprises first and foremost a well defined population, living within a clearly delineated administrative and geographical area, urban or rural. It includes all institutions and individuals providing health care in the district, whether governmental, social security, non-governmental, private and traditional"(9). The advantage of implementing PHC based on a district health system is that the district is a defined unit with some form of local government or administration who can potentially take over many responsibilities from central government departments. It is a managable unit containing all the resources which can be mobilized for health, thus

facilitating intersectoral collaboration and the planning and management of health services across a broad front (8,11,35). The essential characteristics of a district health system based on PHC are: equity; accessability; emphasis on promotion and prevention, intersectoral action; community involvement; decentralization and integration of health programs (6,8,11). It was this concept of district that provided the basis for global enthusiasm for developing district health systems.

In a district, there is a district administrator representing the highest political authorities, and in many countries there are district development committees which have varying degrees of responsibility for managing local developmental initiatives. Many districts also have a health committee which is a sub-committee of the development committee and often the district administrator is the chairman of the health committee, and the leader of the district health team is the secretary.

The district health team is composed of the districts senior health personnel, and its main task is to organize the district health system to support community health activities using all available human, material and financial resources. This can be achieved only in collaboration with the district health and development committees. Thus, effective team work is

crucial to success (8).

III.2. Team Management in Health Care Setting

The issues of team and team work have been dominant in health care for the last four decade"(1) and they are central to the concept of the district health system. There must be a collective responsibility in developing operational plans, organizing health related activities, and monitoring their implementation (4, 8).

The team approach in health care has now been widely accepted. Since teams mean different things to different people it is preferable to specify clear limitations first to avoid confusion (1). In 1955, Gorret noted the notion of team approach to health care has been often repeated and its validity has been unquestionably accepted, while its meaning has remained obscure (13).

The characteristics overwhelmingly identified in the literature convey the image of teams as clearly identifiable entities with specific goals which are common to all members, though with a clear separation of roles and professional domains. Structurally a team evokes the image of a small, bounded unit with set goals and objectives, which include individuals with a minimum of task and knowledge overlap. Such a group is expected to have a decision-making capability and a system of communication involving some face-to-face interaction (1, 12, 14).

III.3. Health Teams in Recent History of Health Care

Teams in the current practice of health care services grew from two different directions. One was due to the advance in medical knowledge and technology with the increasing number of sub-specialities. The other area which fostered the notion of team work was the development of an interprofessional team approach to health care delivery, which went along with the development of the broadening concepts of health and illness (1,15,16).

After the second World War, team work was considered in connection with "comprehensive care" which was the main issue of the 1930s(1). The development of health centres and the engagement of auxiliary health workers for regular outreach preventive activities were considered the main factors for the growth of teamwork notion in the 1960s (17). These outreach workers joined the physicians and allied professionals were already grouped as a health centre based comprehensive care team. These kinds of teams were known as primary care teams due to their broad goals which included giving family care programmes centered on family units rather than on individual patients. They incorporated psychiatry, preventive medicine, and social service with the regularly offered therapeutic services. Thus, there was an integration of the expertise of different kinds of

professionals. On the other hand, the team notion during this period was also popular with other professionals who had primarily one type of task. For example, surgical teams are highly structured with a high degree of coordination centred on the skill of the surgeon (18).

Since 1978, when the primary health care concept was adopted as the strategy to achieve HFA/2000, team management has been emphasized in the co-ordination of the component elements of PHC. As Lartson, et al, described in 1984, "probably the most important instrument available to a district medical officer in charge of the district health team for implementing a primary health care plan is the organization of the team" (35). During the last three decades the health care team has come to be viewed as an "integral part of health care delivery and the sine-qua non for getting tasks done"(12).

But while the health care team has come to be viewed as an integral part of health care delivery services, few systematic studies of team infractions have been reported. Conclusions in the literature regarding interactions, leadership and decision making processes have been based mostly on qualitative observations (12,18).

III.4. The Current Practice of Health Teams

Team relationships in health care have been questioned by many authors. Banta and Renee, for example, concluded that "teams did not function as they have been envisioned. The participants were too diverse and too unfamiliar to each other for the teams to function ideally. The peer relationship sought never emerged. Indeed it was scuttled from the beginning by the practice of assigning a social worker and her supervisor to the same group, and by having experienced, committed physicians and inexperienced, uninterested physicians working together. The nurse reacted to physicians in their traditionally differential way. And physicians followed their inclinations and took charge of teams" (19. Furthermore Spitzer, for example, concluded that "few interdisciplinary teams now practise in an ideal way"(20). Moreover, "such teams are hard to form and even more difficult to maintain"(20). Greener proposes that there is a discrepancy between the nurses' and physicians views and expectations of interdisciplinary teams (12). He concludes by challenging the notion of interdisciplinary teamwork, that it reflects "more the impression of reality which some health care providers wish to foster than the reality itself" (12). A historical review by Brown in 1982 concluded that teams really have not been tried for "as long a time as the

language of their usage suggests" and that "interprofessional teams may never have been fully and consciously planned, tried or studied (1)".

The success of a teamwork depends to a great extent on how well its members work together and with the people they serve. Good management can help a team to work together harmoniously and efficiently. Theoretically effective ways of doing so are described as: setting and showing objectives; encouraging good personal relations; distributing tasks; coordinating the activities of the team; and applying sound organizational principles (21).

A valid way to evaluate the effectiveness of primary health care teams should be based on the assessment of the health outcomes of the community. Such evaluations of health teams are scanty in the literature (20). Some studies, though, have evaluated health teams in terms of the outcomes of the patients under their care. Marsh, describes an obstetric audit in general practice in which primary health care teams include vocationally trained general practice obstetricians. The audit covers the years from 1972 to 1976 and includes 701 pregnancies in a practice working closely with a specialist unit. During those years the practice changed its team composition from that of doctor, nurse and receptionist to a multidisciplinary community oriented group with the general practitioner as the coordinator. During this

period the average perinatal mortality rate was 8.5 deaths per thousand live births, compared to 23.5 deaths per thousand quoted in the British Births Survey. He ascribed the positive results to the high use of the primary health care unit for deliveries obstetric and to the coordinated and comprehensive system of antenatal care (22).

III.5. Determinants of Health Team Performance

Using a socio-psychological and organizational perspective, various determinants of team performance can be described: They are as follows.

III.5.1. Leadership

In most working teams the leader is clearly identifiable as the person in charge. White describes leadership as "the capacity to mobilize the active support of others to reach a worthwhile objective"(23). On reviewing research literature on leadership, published from 1979 to 1986, Goodman has indicated that the effect of leader's trait (e.g., sex and personality characteristics) on team performance were found to be inconclusive. But leadership behaviours such as coordination, planning and motivating were found to affect group performance. Participative leadership behaviour tends to be more effective than an authoritative leadership style (24).

III.5.2. Size

"The results from the field studies suggest that organizations do not operate without some minimal numbers to perform the task. Above that point there may be a range of size that do not impact on performance. However, when size is incongruent with the task requirements, we would expect of diminishing return for additional workers" (24). In general, what is important with respect to the size of a team is that task requirements determine the degree to which size affects performance (24). It seems that each task places a requirement on team size.

III.5.3 Group Process

Group process focuses on the team's day-to-day interaction related to accomplishing its tasks. This can be analyzed from the point of view of the interaction process, the amount of knowledge and skill members bear on a task, their commitment to the objectives, and the identification of problems that interfere with the accomplishment of goal (25). The effect of interaction processes on the quality of relationships among members can be measured, for example, by indicators of mutual trust, cooperation and cohesiveness (25,26).

The group interaction process is a useful indicator of how well a group is doing its work and is a measure of

intervention effectiveness (25). Recent empirical studies present a mixed picture of the impact of team building an group performance. Coming, reports a review by Perra which shows that team building improves process measures, like employee openness and decision making, about 45% of the time and improves outcome measures, like productivity and cost, about 53% of the time (26). Woodman's review on team development, though, concludes that team building cannot be linked convincingly to improved performance. Of the 30 studies reviewed, only ten attempted to measure change in performance (25). Although these changes were generally positive, the "studies' research designs were relatively weak, thereby reducing the confidence in the findings" (25). A recent review, however, has concluded that process interventions, such as team building and process consultations, are most likely to improve process variables such as decision making, communication and problem solving (27).

III.6. Ethiopian Experience of Health Care Teams

The early history of modern medicine in Ethiopia can be traced back to the reign of Emperor Libene Dingel (1508 - 1540) as described by Pankhurst (28). But it was during the region of Menelik II (1889 - 1913) that modern health care facilities were introduced including the

establishment of the first hospital in the country. Moreover, the first public health department under the Ministry of Interior was founded in 1908 to take charge of the health care of country (29). During the era of Emperor Haile Selassie, starting in 1930, health service development accelerated and health services were organized at the ministerial level by establishing the Ministry Of Health in 1948. This marked the beginning of the national health service (30). In 1952 the Ethiopian government decided to develop a basic health service with the health centre as a backbone. This basic health service strategy was based on tackling single communicable diseases (eg. Malaria, and tuberculosis) by means of time limited vertical campaigns (6, 29).

In the mid-1950s the Gondar Public Health College was founded to provide training for basic health service teams composed of health officers, sanitarians and community nurses. In its first decade the college produced 832 graduates who subsequently staffed 64 rural health centres and the 14 provincial health departments (30). During this period most of the health centres were established in district capitals and were staffed by teams led by health officers. Teams of this kind formed the basis for rural health services development for the next two decades (5). Each district health centre acted as the coordinating office for health services in the

district. Though not full-fledged, this stage could be considered as the beginning of district health management in Ethiopia (6).

It was not until the launching of the second five year development plan in 1963 that the first national policy and strategy for health were formulated. They were based on a basic health service network with emphasis on integrated preventive and curative services. But the achievements were modest. The third five-year development plan (1968-73) pursued the same aims, but achieved nothing more of significance (30).

The declaration of the National Democratic Revolution (NDR) programme in 1976 led to the development of a health policy which gave emphasis to disease prevention and control, rural health service, self reliance and community involvement in health services. These policies have been reinforced by the adoption of primary health care as a strategy to achieve the social goals of HFA/2000.

In 1984-85 a primary health care review was carried out in Ethiopia. The review identified the absence of a PHC coordinating unit at the district level as one of the most serious obstacles to the development of PHC in Ethiopia (31). The district is an administrative unit of government where key development sectors are represented. Unique for the health sector was that the absence of a

representative office in such an important administrative unit. Thus, the need to develop and strengthen this centre of decision-making at the district level became an area of immediate concern (5,6). With this in mind, the Ministry Of Health and the WHO engaged in a collaborative venture to study ways and means for developing and strengthening district health management systems. Thus, one of the major activities chosen was the training of medical doctors to assume leadership of district health management (11).

Hence, the District Health Management and Development Centre was established by the Ministry Of Health in Addis Ababa in 1986. Its aim was to provide all the districts in the country with a masters graduate manager in less than a decade. After the first two cohorts graduated the programme was handed over to Addis Ababa University (AAU). In the meantime, the number of districts increased from 105 to 359 due to changes in administrative structure by the People's Democratic Republic of Ethiopia. In 1987, the Ministry of Health started a ten week accelerated management training program to cope with this situation (6, 11). Manpower training and development was also strengthened by graduates from the community based medical school of the Jimma Institute of Health Sciences. But due to various raisons, like absences for further training and transfers

to other jurisdictions and institutions, many trained managers did not stay in the districts long enough to lay foundation of the district health system (6). Even though the Ministry Of Health had declared the structure and job description for the distinct health departments, they were not given budgets and sufficient delegation of authority. In addition, other observed problems include the lack of specification of the academic qualifications of the management team members, lack of incentives, low morale and high turn over of managers and other personnel (6).

Personal observations by this investigator during his community health residency in Akaki district revealed that there was no health management team as such (32). Such weak health management teams were also identified as one of the top problems in similar studies in Arada and Yeka districts (33, 34).

The concept of health teams has received adequate attention at the operational levels by various International Organizations and Ministry of Health. But what is missing are investigations to help evaluate and further implement the team concept.

IV. Materials and Methods

IV.1. Design

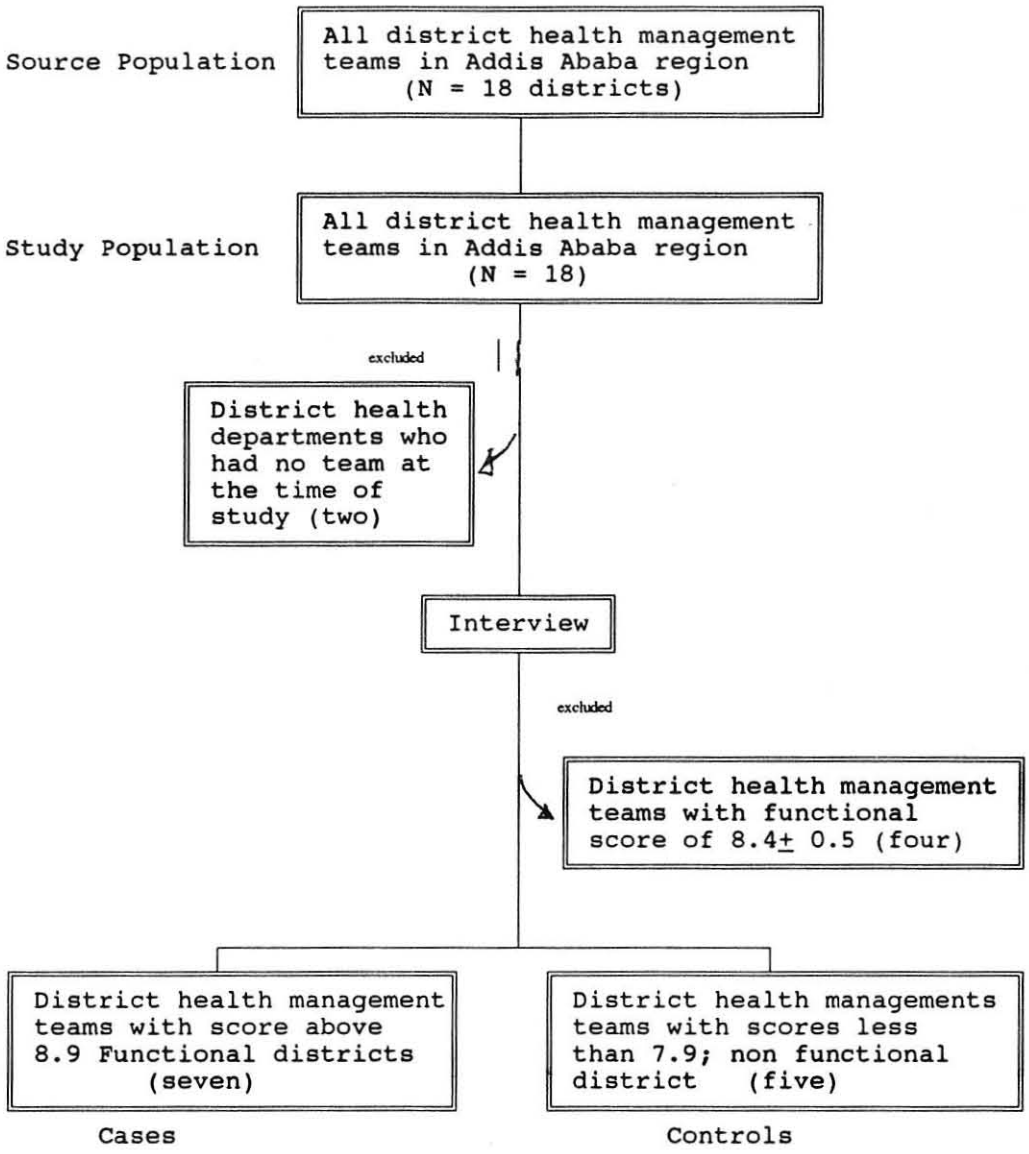
The design of this study is cross-sectional with a case control analysis. Functioning district health management teams serve as the cases and nonfunctional one as the controls. The cases and controls were determined after interviewing all district health management teams in Addis Ababa using a structured questionnaire, then classifying them as to functionality.

The source population for the study was all eighteen district health management teams in Addis Ababa Region up to February, 1993. Since the study is a census survey the study population is the same as that of the source population. At the time of the interview two district health departments did not have health management teams. Thus a total of sixteen district health management teams were included in the study (see figure IV.1) and a total of 71 team members interviewed. As further support for the study secondary data on the Expanded Programme on Immunization (EPI) of the districts were collected.

In addition to this, health institutions located outside the district health department office (most of the district health department offices are found in health centres) and under the district's supervision were randomly selected and the heads were interviewed using a

structured questionnaire to validate the responses of the district health management teams. Although few districts did not have such health institutions, a total of six health centre, ten health station and eleven health post heads were interviewed.

Figure IV.1. Study Design



IV.2. Measurements

Though there was some lack of expert scoring (judgement) of these items scores were given to qualitative data and cut-off points were determined in order to allow a quantitative analysis.

IV.2.1. Health Team Functionality Score (Outcome Variable)

In this study the major dependant variable is functionality of the district health management teams. This was measured by comparing the activities of the district health management teams with the major expected duties and responsibilities of the health teams as published by the Ministry of Health (see table IV.1). Functionality was determined by assigning a score to each district management team which was composed of scores given to compliance with the seven major expected responsibilities of the health teams. Scores were calculated for each team member, including the manager, and were then averaged to get the teams overall score of functionality. The maximum score possible was 14.

Table IV.1: Functionality Scoring (From Job Description- see Annex I)

a) Plan of action for the health team

0 = none

1 = present, but not clear

2 = present and clear

b) Clear understanding of functions, responsibilities and power

0 = none

1 = present, but not clear

2 = present and clear

c) Decides on technical issues of a health programme that need to be made at the district (eg. when to do it, where to do it, who should do it)

0 = not at all

1 = occasionally

2 = always

d) The amount of co-ordination with other sectors (eg. agriculture, education, water and sanitation)

0 = none

1 = unsatisfactory (e.g. on and off co-ordination with one or two)

2 = present and satisfactory (sustained co-ordination with governmental organizations and NGOs)

e) The amount of supervisory activities under your co-ordination

0 = none

1 = occasional (at least once every 3 months or more)

2 = regular (at least once each 3 month period)

f) Collection and analysis of data on health service coverage

0 = none

1 = occasional

2 = frequent

g) Carrying out other health related activities assigned by the district manager, regional health department or the district administrator

0 = none

1 = occasionally

2 = frequently

IV.2.2. Team Status Identification

The cut-off point for functionality status of the teams was set at 8.4. This is based on the assumption that a task performance of 60% of the maximum score is necessary for the team to be labelled functional. Accordingly, teams with mean score of 8.4 or more are considered as functional and those with less than 8.4 as non functional for this particular study. Although 8.4 was fixed as a cut-off point, teams whose mean score is

within the range of 8.4± 0.5 were excluded from the analysis in order to strengthen our classification of cases and controls (i.e, functional and non-functional teams).

IV.2.3. Team and Team Member Characteristics (Independent Variables)

The information on the health teams was obtained from the members of district health management teams using a structured questionnaire. Some of the variables measured were socio-demographic characteristics; educational status; experience; the composition of the team (as indicated by professional qualifications, sex, and number of team members); support from the health system (e.g. through training, seminars, and supervision); local government support (through the district health committee); support from non-governmental organizations (e.g. in sponsoring seminars and short training sessions in the district); and team dynamics which was a composite score of eleven items concerning the degree to which the team was cohesive, clarified its objectives its members, experience and various task related interactions. Each of these was measured by a five point Likert scale. The sum of the mean scores of each team members (including the manager) was used as the score of the team.

IV.3. Data Collection

The method used to collect the necessary data was a structured questionnaire applied to all 16 health team members. The questionnaire was first developed in English and then translated to Amharic. All the interviewers were health personnel, either physicians or nurses, who were trained for three days. The questionnaire was pretested in a nearby district and revised accordingly (see annex VIII). The interviews were carried out with the full consent and commitment of each district health management team member. Before each interview, the interviewers explained the objective of the study, especially making clear that it was not the aim of the study to evaluate the performance of individuals nor to blame any one for weaknesses. But rather the goal was to gather information and opinions that might lead to eventual improvement in the management of health services at the district level. Moreover, the aims of the study and the request for consent of team members had been attached on the front page of questionnaire (see annex VIII). Regarding the response to the questionnaire, all the managers and team members responded giving a response rate of 100%.

An attempt was made to control recall bias by limiting the questions to recent activities of the district health management (i.e. 3 to 6 months maximum).

Bias resulting from prevarication was also controlled by interviewing health centre, health station and health post heads regarding supervision, training and reporting activities in relation to the district teams.

Data were entered into a personal computer using the EPI-INFO statistical software to facilitate analysis.

IV.4. Method of Analysis

Descriptive analysis is used for providing the profile of the health teams and the proportion of functional and nonfunctional health management teams. Nonparametric tests (Wilcoxon Rank Sum Test and Spearman Rank Correlation) were used to determine any association between categories of functionality and team characteristics.

As mentioned earlier the functional status of the teams was based on their mean score. The next step was to determine the influence of the various team characteristics on team functionality, especially with respect to the manager's experience and level of training, and the teams' task related interactions and cohesiveness. In addition to this an attempt was also made to determine what other factors play a role in determining the teams functionality.

V. RESULTS

V.1. GENERAL CHARACTERISTICS OF THE DISTRICT HEALTH MANAGEMENT TEAMS (DHMTs)

The size of each District Health Management Team (DHMT) and the members professional category at the time of interviewers in February, 1993 is described in Table V.1. The smallest team had two members (i.e. the district manager and a programme coordinator) and the largest team had seven members. Ten out of the twelve team leaders (district managers) are physicians and two are nurses. Of the programme coordinators 43.9% (18/41) are nurses, 24.3% (10/41) are sanitarians and 22% (9/41) are health assistants, and the remaining 9.8% (4/41) are pharmacists and pharmacy technicians.

The age distribution of the 53 team members interviewed is seen in Figure V.1. Most (86.8%) are between the age of 26 and 40 years. Male had constituted 73.6% (39/53) and 26.4% (14/53) of the team members with a female to male ratio of 1:3.9.

Table V.1: The Size and Professional Composition of DHMTs (12 regions of Addis Ababa, 1992)

District code	Team Leaders (Managers) Category	Programm Coordinators Nurse	Sanitarian	HA	Pharmacist/PT	Total
1	Physician (MD+MPH)	2	1	2	-	6
2	Physician (MD)	2	1	-	1	4
3	Nurse	-	1	-	-	2
6	Physician (MD)	3	1	-	-	5
9	Physician (MD+MPH)	2	2	-	-	5
10	Physician (MD+MPH)	1	-	2	-	4
11	Physician (MD+MPH)	1	1	1	-	4
12	Nurse	3	-	1	-	5
13	Physician (MD)	1	1	1	3	7
14	Physician (MD)	-	1	-	-	2
15	Physician (MD)	2	-	2	-	5
16	Physician (MD)	2	1	-	-	4

(NOTE (*): for names of the districts see Annex VII)

V.2 FUNCTIONALITY

Functionality of the health teams was the dependant variable under study. The mean functionality score of the twelve DHMTs can be seen in Figure V.2. Five of the districts (i.e. 41.7% or 5/12) were determined to be performing less than 60% of the activities required in the job description and seven were determined to be performing more than 60%. Thus this group is considered functional for this particular study. When questionnaires were examined for discrepancies between the responses given by the DHMT members and the respective health centre, health station and health post heads, very few discrepancies were found.

Age Distribution of the DHMT Members (12 Districts of Addis Ababa, 1993)

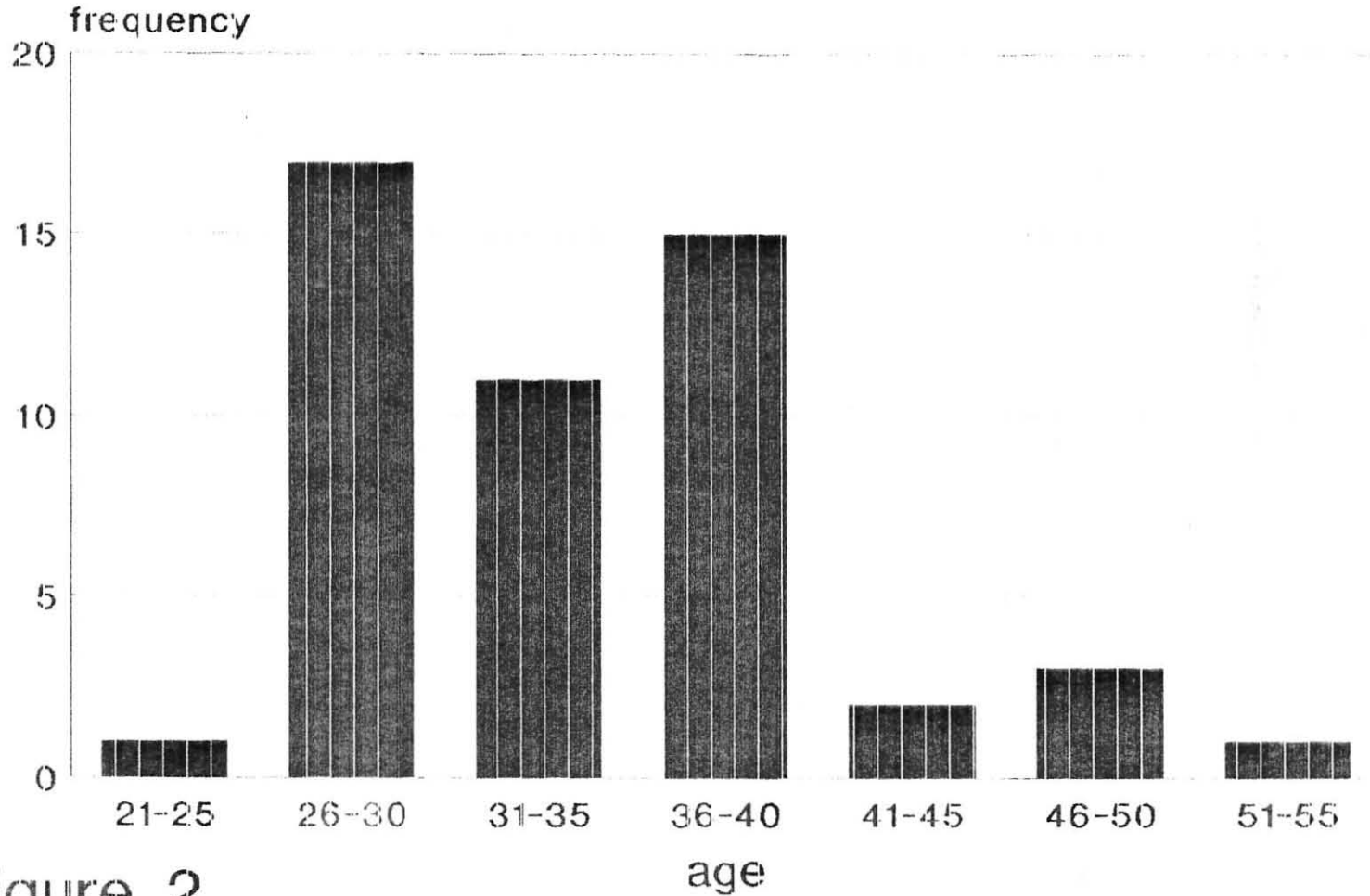


Figure 2

Functionality Scores of the DHMTs (Twelve District of Addis Ababa,1993)

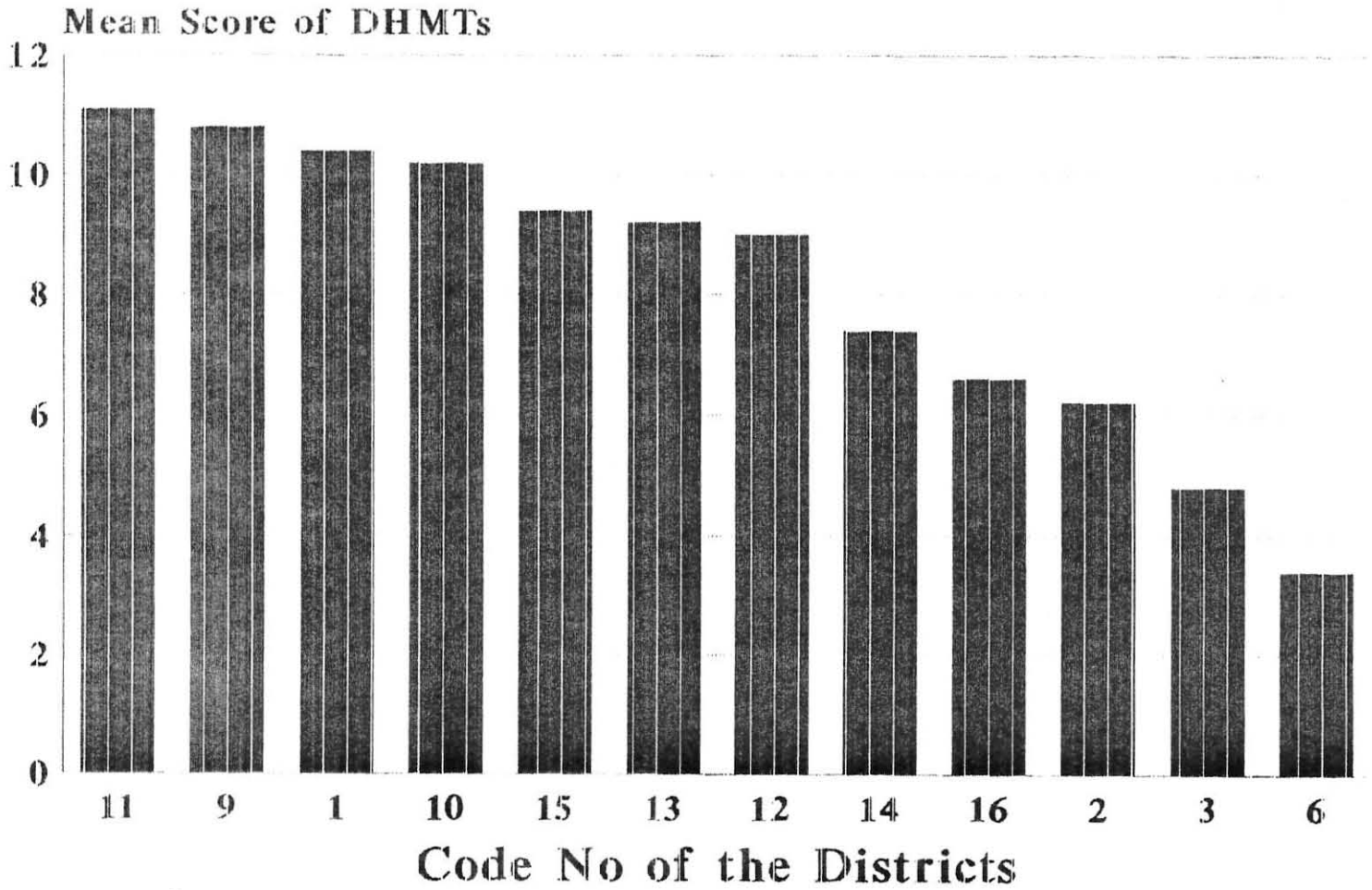


Figure 3

V.3. DHMT CHARACTERISTICS AND TEAM FUNCTIONALITY

From the questionnaire survey various characteristics of the members and the teams were identified. Table V.2 shows some of the attributes of functional DHMTs as compared to nonfunctional ones.

Table V.2: Characteristics of Functional and Nonfunctional DHMTs (Addis Ababa 1993)

Comparison Variables	FUNCTIONAL DHMTs Frequency	FUNCTIONAL DHMTs Proportional Frequency	NONFUNCTIONAL DHMTs Frequency	NONFUNCTIONAL DHMTs Proportional Frequency
Age (team leader)				
≤ 30	2	0.29	3	0.60
> 30	5	0.71	2	0.40
Total service year				
≤ 5	3	0.43	1	0.20
> 5	4	0.57	4	0.80
Participation in the 3 month accelerated programme				
No	4	0.57	3	0.60
Yes	3	0.43	2	0.40
Completed the MPH * programme				
No	3	0.43	5	1.00
Yes	4	0.57	0	0.00
Presence of job description * for the team				
No	1	0.14	2	0.80
Yes	6	0.86	3	0.20
Supervision from Regional Health Department				
No	2	0.29	5	1.00
Yes	5	0.71	0	0.00
Participation in workshops				
Never	0	0.00	1	0.20
Seldom	5	0.71	3	0.60
Very often	2	0.29	1	0.20
Research activities *				
No	2	0.29	5	1.00
Yes	5	0.71	0	0.00
Size of the team *				
≤ 4	2	0.29	4	0.40
> 4	5	0.71	1	0.60
Urban/rural district				
urban	5	0.71	3	0.60
rural	2	0.29	2	0.40

* significant associations (at $P < 0.05$)

V.3.1. Level of Management Training

33.3% (4/12) of the DHMT leaders have graduated from the masters of public health programme at Addis Ababa University, and of these one had participated earlier in the three month Ministry of Health accelerated district managers programme. 33.3% (4/12) of the team leaders had also participated in the accelerated programme and the rest 33.3% (4/12) had not received any management training.

V.3.2 Presence of Job Descriptions For the Team

75% (9/12) of the districts have job description for the DHMTs, the rest 25% (3/12) had none. The reason given for not having the job description were; two felt that there is no need for a job description while the district health department structure is not supported by a budget; and the other one felt that the district health department is nominal and has no authority, therefore there is no need for a job description. Of the three DHMTs without a job description two of the team leaders neither had an MPH nor had participated in the accelerated programme; whereas seven team leaders of the nine DHMTs with job description did not either participated in the MPH or accelerated programme.

V.3.3 Size of the Team

Of the 12 DHMTs, one district team had only two members (i.e. a leader and a programme coordinator) and the largest DHMT consisted of seven members. In general half of the DHMTs (6/12) had members of five or more and the rest had four or less members. The mode, mean and median for the size of the functional DHMTs was 5. The correlation between functionality score and the size of the team is found to be positive ($r_s = 0.37$).

V.3.4. Research Activities

Only 14.7% (5/12) of the DHMTs were carrying out some kind of research activities in their districts of these five DHMTs four were investigating aspects of Maternal and Child Health (MCH), Family Planning, and expanded programme of immunization (EPI) on environmental health. Regarding utilization of the research outcomes three districts tried and two DHMTs didn't. The reasons given by the latter were related to financial problems. Though one had left the district three months prior to the interview, all the research were carried out by DHMTs who had leaders with MPH.

V.3.5. Determining the Significance of Association

When functionality was cross tabulated with various determinant variables statistically significant odds ratio values were found for the following variables (see Table V.3).

a) Team leaders with MPH ($P < 0.05$)

b) Presence of job description ($P < 0.05$)

c) Size of the team ($P < 0.05$)

d) Research activities ($P < 0.05$)

Table V.3: **Strength of Association for Some DHMT Characteristics (Addis Ababa, 1993)**

Variables	Functional DHMT	Nonfunctional DHMTs	OR	95%CI
Team leader with MPH				
No	3	5	14.1	14,259
Yes	4	-		
Presence of job description				
No	1	2	4.0	3.8,57.3
Yes	6	3		
Size of the team				
< 4	2	4	10	9.98,128.82
≥ 4	5	1		
Research activities				
No	2	5	5.0	4.1,106.4
Yes	5	0		

No significant association was found between functionality and the following variables.

a. Age of the DHMTs leader (P>0.05)

b. Mean age of the team members (P>0.05)

c. Total service year (P>0.05)

d. Supervision from the regional health department (P>0.05)

e. Participation in the 3 months accelerated programme (P<0.05)

f. Presence of a health committee (P>0.05)

g. Support from Regional Health Department (P>0.05)

h. Participation in workshop and seminars. (P>0.05)

i. Urban and rural districts (P>0.05)

V.4 PERCEPTION OF DHMT INTERACTION

The DHMT member's perceptions of interaction with respect to task and performance processes were measured by giving scores to each of eleven items. The over all mean score for each district was given a rank to determine association using the Wilcoxon Rank Sum Test. Table V.3. Shows the mean score given to the perceptions of group interactions with in the DHMTs compared to the functionality status. The maximum score that can be obtained is 55 and the minimum is 11, based on the five point Likert scale given for each items. The lowest mean score obtained is 20.5 and the maximum 49.2. 75% (9/12) of the DHMTs obtained mean score of 40 and above, and the remaining 25% Below 40.

V.4.1. The Significance of Association

The significance of association is determined by ranking overall scores for DHMTs and adding the ranks for functional and nonfunctional (Wilcoxon Rank Sum Test). Statistically significant association was found for DHMTs interaction and functionality ($P<0.05$), $rs = 0.77$. Functionality was determined statistically significant association were found for the following variables.

a) objective clarity ($P<0.05$)

b) experience analysis ($P<0.05$)

c) knowledge of each others role ($P<0.05$)

d) communication, open communication ($P<0.05$)

e) respect for difference ($P<0.05$)

f) sense of belonging ($P<0.05$)

Further more the spearman correlation co-efficient between DHMTs interaction process and these variables was determined by categorizing the variable as the following (26)

1. Group maintenance = the sum of items reflecting those behaviours that are important for holding the group together (open communication, respect for difference, sense of belonging), ($r_s = 0.92$).

2. Group task activity = the sum of items reflecting activities directed at helping the group accomplish its goal (objective clarity, experience analysis, knowledge of each others role), ($r_s = 0.92$).

Table V.4. Mean Scores of Group Process for each DHMT (Addis Ababa, 1993).

	FUNCTIONAL DHMTs							Non Functional DHMTs						
District No	1	9	10	11	12	13	15	2	3	6	14	16	Lower rank sum	P
Variables														
objective clear	4.2	4.4	4.3	4.0	3.6	4.1	4.6	3.0	2.0	4.2	4.0	3.3	20.0	P<0.05
Commitment	4.7	3.8	3.5	4.3	3.2	3.7	3.6	3.5	2.0	4.2	3.5	3.8	27.5	
Knowledge of and experience utilization	4.3	4.8	4.0	4.3	3.2	3.0	3.6	3.8	1.5	3.4	3.5	3.5	24.0	
Experience analysis	3.8	4.6	4.0	4.3	3.6	3.6	3.0	2.5	2.0	3.2	3.5	2.8	12.5	P<0.05
Knowledge of each other role	4.2	4.2	4.0	4.5	3.6	3.7	4.2	3.8	2.0	4.0	3.5	3.8	19.5	p<0.05
Communication	4.0	5.0	4.3	4.5	4.0	3.7	4.0	3.5	2.0	4.0	3.5	4.0	16.0	p<0.05
Conflict handling	4.0	4.6	4.0	4.5	3.8	4.3	3.6	3.3	2.0	4.0	4.0	4.0	24.0	
Respect for differences	4.0	4.4	3.3	4.3	4.0	3.5	4.6	3.3	2.0	3.6	3.5	3.3	16.5	P<0.05
Trust	3.8	4.2	3.5	4.5	4.0	4.0	4.0	3.3	1.50	4.2	3.5	3.8	22.5	
sense of belongingness	4.5	4.4	4.0	4.5	3.8	4.1	3.6	3.0	1.0	4.4	3.5	3.3	19.5	P<0.05
We went to work in it	4.7	4.8	3.0	4.5	3.6	4.5	4.6	4.0	2.5	4.6	4.0	4.3	25.5	P<0.05
Total	46.2	49.2	41.2	49.2	40.4	42.5	43.6	37	20.5	42.8	40	39.4	18.0	P<0.05
Rank	10	11.5	6	11.5	5	7	9	2	1	8	4	3		

V.5. Expanded Programme on Immunization (EPI) Activity of the Districts.

The EPI activities of the year 1992 for the 12 districts was collected from the records of regional health department. The coverage which is based on complete immunization against diphtheria, pertussis and tetanus for those who are less than 52 weeks children was calculated. The mean coverage was compared for functional and nonfunctional districts. As shown in Table V.5 the mean coverage for functional districts was 43% and for the non functional 28.3%.

Table V.5: **The Mean EPI Coverage (DPT<52 weeks) and the Rank Sum Test for Functional and Nonfunctional Districts**
(records are taken from the Addis Ababa Regional Health Department)

FUNCTIONAL			NONFUNCTIONAL			
District No	EPI coverage	Rank	District No	EPI coverage	Rank	P
1	59.6%	10	2	6.8%	2	
9	60.6%	12	3	18.7%	4	
10	25.5%	5	6	39%	7	P>0.05
11	44.2%	8	14	51.2%	9	
12	16.6%	3	16	26%	6	
13	76.4%	12				
15	4%	1				
Mean	41%			28.3%		

V.5.1. The Significance of Association

The significance of association is determined by ranking the EPI coverage for each district and the WCRST was not statistically significant (P>0.05).

VI. DISCUSSION

In this study seven of 12 DHMTs in Addis Ababa Region were shown to be functional be demonstrating performance in at least 60% of the tasks in their job descriptions. The study also revealed that DHMT functionality is positively associated with the teams' interaction processes ($P<0.05$). Items reflecting group task activities (e.g. objective clarity, experience analysis and the knowledge of each others role; $r_s = 0.92$) and those reflecting group maintenance (e.g. open and genuine communication, respect for differences, and the perception of belonging; $r_s = 0.92$) were found to be statistically significant ($P<0.05$) in their association with functionality.

The interaction processes are indicators of how well a group is doing its work (25), and they represent the means by which socio-technical arrangements are carried out in day-to-day activities (36). Furthermore, the integrated characteristics contained in the interaction processes distinguish a group from an aggregate of individuals. Thus, a team needs a combination of various skills to maintain the performance of the group and helping it accomplish its goal. Successful groups are more able to combine group maintenance and group task activities (25,36).

Another finding of the study is that the functionality of the DHMTs is positively associated with a higher academic qualification of its leader and the presence of job descriptions for the health team members (OR=14.1 and 4, respectively). The association between the leader's academic qualification and functionality. This can be explained by the influence of the MPH degree (and other management) learning on leadership behaviours such as planning, coordination and motivating which are known to affect group performance (24). The presence of a job description significantly affecting functionality ($P<0.05$) could also be explained in terms of the leadership academic qualification due to fact 7/9 with a job description had either participated in the MPH or accelerated management training programme.

Research activities of the DHMTs are also found to be associated with functionality which in turn is associated with the academic qualification of the leader (OR=5). Of the five DHMTs carrying out research the leaders of four have a MPH degree which further strengthens the association between leadership qualification and functionality.

The measure of central tendency for the size of function DHMTs is found to be five. The size of the team also has a statistically significant association with functionality ($P<0.05$). The study also shows a positive

correlation between the size of team, the teams' interaction processes and functionality (rs= 0.37, rs=0.27). It is likely that the size of the team, with respect to it organization structure, facilitates the division of labour and increases the input of individuals to the overall team effort. Functionality is thereby affected by team size, especially through its potential to influence the clarity of team objectives and roles and the sharing and analysis of experiences.

The mean EPI coverage of the functional DHMTs was 41%, showing a 12.7% more coverage than the non functional DHMTs (28.3%). Though the WCRST showed non-significant difference ($P<0.05$), a 12.7% difference in coverage need not be undermined from clinical point of view. Thus the observed difference in one of the PHC programme element can be taken as a support for this study which showes difference in health outcome of the functional and non functional DHMTs.

As a cross-sectional study, it can only show associations rather than cause and effect. From this study it is believed that the structural characteristics of a team (e.g. the academic qualification of the leader and the presence of job descriptions) influence the interaction processes and together determine functionality.

While this study has demonstrated important findings

about the workings of DHMTs, it was limited by three important considerations. First, it did not evaluate the DHMTs in terms of performance outcomes, mainly those relating to change in actual health indicators of their respective communities. By utilizing compliance with actual team job descriptions as measures of functionality, the study does not take into account that functionality could also be measured by such performance. Another limitation is that the study does not show the relative effect of each different team characteristic and interaction process. Furthermore, the smallness of the sample size affected the statistical power of the study.

VII CONCLUSIONS AND RECOMMENDATIONS

This study has found that various factors can positively affect the functionality of DHMTs. It is important to not only identify these modifiers, but also to understand them thoroughly, because the role of the DHMT is so important to the development of a well functioning district health management system in Ethiopia. Team work has been shown to be very important to the success of organizations (36), no less so for those in the health field. I have demonstrated that functionality of DHMTs can be affected by various structural team characteristics and internal interaction processes. These are all variables that can be modified through management decisions. It is important for policy makers and line managers in the health sector to understand that modifications of the present management structure and processes can make positive contributions to the delivery of health services through the team approach.

Therefore, on the basis of this study it is recommended that:

1. District health teams (Wereda level of the current adminstration structure), be assigned leaders with appropriate management qualifications. Further the requirements for all team members' academic qualification be stated clearly.

2. On designing health care management teams, managers take into account the best size for the district health management teams with respect to the overall mission and specific objectives of the organization in order that the roles be jade clear and appropriate communication channels be established.
3. The objectives of the team and job descriptions for the team members be made clear.
4. District health teams should build capacity to carry-out research which is related to their objectives and tasks (e.g. applied and operations research).
5. The organizational structure of the district health management teams be supported by a budget and appropriate delegation of authority.

REFERENCES

1. Theodore M. Brown, "An Historical View of Health Care Teams," In: Responsibility in Health Care, ed. Gorge I. Agch (Doredrecht, Holland: D. Reidel, 1982) 3-21.
2. Lewis, C.E. 1968 The Physician as Care Team Leader. Group Practice.
3. Kane R.A., Interprofessional Teamwork. Manpower Monograph No. 8 (Syracuse: Syracuse University Press, 1975).
4. Hastings, J.E.F., The Community Health Centre in Canada, Report of the Community Health Centre Project to the Conference of Health Ministers (Ottawa: Information Canada, 1973).
5. Tadesse, Getachew. "Ethiopia: The course is charted" in Achieving Health For All by the Year 2000: Midway Reports of the Experiences. Eds. E. Tarimo & A. Creese, pp 80-97 (Geneva: WHO, 1990).
6. Gebreselassie Okubagzhi, District Health Management in Ethiopia: Concept and Practice. (Addis Ababa: Awraja Health Managers Training and Demonstration Centre, MOH, Nov. 1990).
7. Editorial, Health Development & PHC, Discussion Article, Journal of Health Development, Vol. 1, 1984.
8. G.L. Monekosso, Accelerating the Achievement of

Health for All Africans. (Brazzaville: WHO, January 1989).

9. Regional Committee for Africa 1987. The Work of WHO in the African Region 1985-86, Biennial Report of the Regional Director. AFR/RC 37/3 1st January, 1987.

10. WHO, District Health System Based on Primary Health Care, Global Program Committee (GPC) 20/WP 14, 1986.

11. WHO, Ethiopia: Strengthening the District Health System to Meet the Challenge of Primary Health Care, (Addis Ababa: WHO, June 1987).

12. Helena Temkin-Greener, "Interprofessional Perspectives on Team Work in Health Care: A Case Study," Milbank Memorial Fund Quarterly/ Health and Society, Vol. 61, No. 4, 1983.

13. Garrett, J.F., "Social Psychology of Teamwork." In: Medical and Psychological Teamwork in the Care of the Chronically Ill, ed. M.R. Harrower. (Springfield, Ill.: C.C. Thomas, 1955).

14. Ames, A., and J.M. Perrin. "Collaborative Practice: The Joining of Two Professions." Journal of the Tennessee Medical Association, 73: 557-60, 1980.

15. Aradine. C.R., and M.F. Hansen, "Interdisciplinary Teamwork in Family Health Care." Nursing Clinics of North America, 5:211, 1970.

16. Committee for the Study of Nursing Education, Nursing and Nursing Education in the United States, (New York: The MacMillan Company, 1923).

17. Brandon, W., "Politics, Administration and Conflict in Neighborhood Health Centers," Journal of Health Politics, Policy and Law, 2: 79-99, 1977.

18. Feiger. S.M., and M. H. Schmitt, "Collegiality in Interdisciplinary Health Teams: Its Measurement and Its Effects." Social Science and Medicine, 13:217, 1979.

19. Bante, D. and Fox, R. 1972. "Role Strains of a Health Care Team in A Poverty Community." Social Science and Medicine, 6: 697-722, 1972.

20. Spitzer, W.O. and R.F. Roberts. "Twelve Questions About Teams in Health Services." Journal of Community Health, 6:1, 1980.

21. McMahon, R., Barton, E., & Piot, M. On Being in Charge: A Guide for Middle Level Management in Primary Health Care, (WHO, Geneva, 1980), p. 63.

22. Marsh, G.N., "Obstetric Audit in General Practice." British Medical Journal, 2: 1004-1006, 1977.

23. Africa Health, Vol 15, No. 3, March 1993.

24. Goodman, Paul S. and Associates, Designing Effective Work Groups, (San Francisco: Jossey Bass, 1986)

25. Woodman, R.W., and Sherwood, J.J., "The Role of

Team Development in Organizational Effectiveness: A Critical Review." Phycological Bulletin, Vol. 88, No. 1, pp. 166-186, 1980.

26. Hackman, J.R. "The Design of Work Teams." Prepared as Part of a Research Project on Work Team Effectiveness supported by the Office of Novel Research (Organizational Effectiveness Research Program Contract N: 00014-80-C-0.0555 at Yale University).

27. R. Woodman and S. Wayne, An Organization of Positive. Finding Bias in Evaluation of Organization Development Interactions, Academy of Management Journal 28, 89-913, 1985.

28. Pankhrust, R., "A Historical Examination of Traditional Ethiopian Medicine and Surgery." Ethiopian Medical Journal, 157-172, 1985.

29. Ahmed Zein, Z., and H. Kloos (eds.),"The Ecology of Health and Disease in Ethiopia," (Addis Ababa: Ministry of Health, 1988), pp. 1-15.

30. Ahmed Zein. Z. and H. Kloos (eds.), The Ecology of Health and Diseases in Ethiopia. (Boulder, Co.: Westview Press, 1993).

31. MOH, "Primary Health Care Review." (Addis Ababa: MOH, 1985).

32. Mahdi B., "Health Profile of Akaki Awraja". Addis

Ababa: 1992.

33. Eskindir R., "Health Profile of Arada Awraja." Addis Ababa: 1992.

34. Alemayehu, B., "Health Profile of Yeka Awraja," (Addis Ababa: 1992).

35. Lartson, R.A., Ebrahim, G.J., Lovel, H.J., and Ranken, J.P., District Health Care: Challenges for Planning, Organization and Evaluation in Developing Countries, (London: Macmillan, 1984), pp. 117-122.

36. M. Shortell and D. Kaluzny (eds), Health Care Management - A Text in Organization Theory and Behaviour. (New York: Wiley Medical Publishers, 1983).

ANNEX I

Duties and Responsibilities of the Health Team

1 The health team is responsible for the planning directions and control of all health related activities in the awraja.

2. The health team members have a group responsibility and individual accountability.

3. The health team makes scheduled visits to all health units in the Awraja at least once in three months for not less than two days in each health unit.

4. The team members assigned for coordinating the various programmes are responsible for carrying out duties and responsibilities stated in the job description.

5. The health team functions as a technical body under the chairmanship of the Awraja health manager and is therefore responsible for all technical decisions that need to be made at the Awraja level.

6. In the absence of the Awraja Health Manager will function as acting Awraja Health Manager.

7. The health team will carry out other activities as given by the health manager, Awraja administration and Regional Health Department.

ANNEX II

Duties and Responsibilities of the Awraja Health Manager.

1. Attend all official meetings representing the Ministry of Health at the Awraja level.
2. Establish close working relationships with officials and community leaders in the Awraja and assumes the position of a secretary in the Health Committee of the Awraja Development Committee.
3. Assess community health problem, set priorities and draw action plans with the full involvement of the community.
4. Provide leadership to the Awraja Health Team.
5. Establish supervisory net work for Awraja Health Services and develop and organize effective supervision of the units and institutions.
6. Develop procedures and directives for implementation of the PHC activities in the Awraja.
7. Established a health information system that is closely linked to monitoring and evaluation of health services.
8. Promote, plan and carry out applied research a problems related to health and carry out applied research a problems.
9. Coordinate and supervise the activities of all institutions engaged in health work in the Awraja.

10. Direct and coordinate the training of health workers in the Awraja.
11. Conduct seminars and workshops to upgrade the level of the understanding of all those involved in health work in the Awraja.
12. Participate in seminars, conferences, and workshops prepared at local, national and international level.
13. Develop strategies that help improve the health status of the Awraja population.
14. Direct and supervise the activities of the members of the health team.
15. Direct and control the administration of finance personnel, supplies, property correspondence of the Awraja Health Management.
16. Provide technical guidance to health institutions.
17. Establish a well orchestrated referral system in the Awraja.
18. Develop mechanisms for upgrading the professional competence of the health workers in the Awraja including the health team.
19. Report monthly on the Awraja Health service to the Awraja Development committee and the Regional Health Department.
20. Perform other duties assigned to him by the local Administration and the Regional Health Department.

Annex III

Duties and Responsibilities of the Awraja Family Health Coordination

A. Directly responsible and accountable to the Awraja Health manager.

B. Responsible for all activities related the health of mothers and children nutrition and family planning to achieve this goal, the activities are:-

1. Coordinate and guide all material and child health program carried out by community health services, health stations, health center and hospitals.
2. Identify and find strategies for combating harmful community practices which affect mothers and children.
3. Conduct training of TBAs and CHAs and devise appropriate supervisory mechanisms to strengthen their role in MCH, Nutrition and family planning services.
4. Establish standards and procedures for various levels of MCH services.
5. Design appropriate Health Education materials and methods to be used by health workers involved in MCH, family planning and nutrition programs.
6. Establish standards for collection of information that help monitor and evaluate MCH, family planning and nutrition status.

7. Monitor and evaluate the services for mothers and children and institute timely and appropriate corrective measure for identified areas of weakness.

Annex IV

Duties and Responsibilities of the Epidemiology and Sanitation Coordinator

1. Directly responsible and accountable to the Awraja health manager.
2. Directs and attempts to study distribution of communicable diseases in the Awraja.
3. Compiles the reports from health institutions in the Awraja to determine the type of diseases prevalent in the Awraja.
4. Based on information available, the coordinator will help health institutions to plan for supplies, manpower, budget etc.
5. Helps prepare appropriate health education material for the prevalent diseases in specific areas.
6. Directs attention of health institution and professionals toward environmental health activities such as

    Adequate and proper water supply

    Proper housing

    Inspection of public food and drinking establishments

    Industrial hygiene

    School health

    Insect and rodent control

7. Strengthens epidemic control and surveillance in the Awraja.
8. Plans, directs and control EPI programs in the Awraja in collaboration with the MCH coordinator of the Awraja.
9. Stimulate health workers through seminars workshops and conferences to create the necessary appreciation for MCH, family planning and nutrition services.
10. Strengthen family planning services at all levels with particular attention to serving mothers or females at risk.
11. Support EPI programmes.
12. Monitor nutritional status of the community through continuous growth monitoring of children and provide education to the public on preparation of nutrition food from locally available food staff.
13. Take appropriate measures to combat diarrhoeal disease in children.
14. Communicate with the regional MCH coordinator to familiarize himself (herself) with recent directives and developments in MCH and family planning.
15. Performs other duties that may be assigned to the coordinator by the Awraja Health Manager.

Annex V

Duties and Responsibilities of the Training and Health Education Coordinator.

1. Directly responsible and accountable to the Awraja health manager.
2. In collaboration with the other coordinating offices identifies training needs of the Awraja health institutions and draws yearly schedule for the training of CHAs, TBAs and others.
3. Organizes seminars conferences and workshops for upgrading the performance of health workers.
4. Prepares and/or distributes health related information to all health institution in the Awraja.
5. Identifies health workers in the Awraja for short or long term training.
6. Prepares appropriate pamphlets, audiovisual aides for health education in the Awraja.
7. Records the available health manpower in the Awraja with specific details such as age sex specialty, year of service etc.
8. Performs other duties assigned by the Awraja health manager.
9. Studies and identifies occupational hazards in collaboration with appropriate bodies and directs measures to be taken to alleviates the problems.

10. Establishes an information system which help monitor and evaluate the various activities under his coordination.
11. Performs other duties assigned by the Awraja Health Manager.

Annesx VI

Duties and Responsibilities of the Drug and Traditional Medicine Coordinator.

1. Directly responsible and accountable to the Awraja health manager.
2. Identifies the drug needs of the Awraja health service and ascertains that the basic drugs are available throughout the year.
3. Keeps the inventory of the Awraja drug score and orders drugs for purchase well in advance.
4. Studies drug utilization patterns in the Awraja and recommends measures to be taken.
5. Identifies traditional medical practitioners in the Awraja and studies their traditional practices.
6. Invites appropriate professionals to study the medical usefulness of herbs and leaves used in traditional practices.
7. Recommends those with acceptable traditional medical practices for registration.
8. Performs other duties assigned by the Awraja health manager.

ANNEX VII

The Name of the Districts.

1. Addis Ketema
2. Akaki
3. Alem Gena
6. Bole
9. Kechene
10. Kirkos
11. Kolfe
12. Kotebe
13. Lideta
14. Nefas Silk
15. Sululta
16. Tekle Haimanot.

ANNEX VIII

Respondents Guide

Good morning/ Afternoon. My name is _____ and, I have been hired to help carry out a study by Dr. Mahdi Bekri. Dr. Mahdi Bekri is a post graduate student of Addis Ababa University, and this study is a requirement for his masters degree in Public Health. The purpose of the study is to gather information on the activities of district health management teams, in order to gain a better understanding of their dynamics and to help in formulating suggestions to increase their effectiveness in dealing with health problems.

There is no risk to you from taking part in this study. The regional office of the Ministry of Health, the district health management office and district administration are fully informed about the study.

The questions I would like to ask you are to be answered on a voluntary basis and there are no right or wrong answers. All information will be kept confidential. There will be no names on the questionnaire.

Before I ask you to participate in the study, do you have questions about the study. Would you now agree to answer the following questions to the best of your ability.

Thank you !!

Questionnaire for the District Health Managers

A. Identification

Date _____

District _____

Interviewer _____

B. Introduction

1. What is your age _____

Sex _____

2. Are you at present

1. Single___ 2. married ____

3. widowed _____ 4. divorced _____

3. What are your educational qualifications ?

1. diploma___ 2. BSc/BA___

3. BSc + MPH___ 4. MD___

5. MD+MPH___ 6. Others (please specify)_____

4. Where did you do your training

1. Addis Ababa____ 2. Jimma___

3. Gondar___ 4. Abroad___

5. Other(please specify)_____

5. Have you participated in the three month accelerated course in district health management given in Ras Imeru ?

1. Yes_____ 0. No___

6(a). What is your total years of service up to now ?_____

(b). How long have you served in this district ?_____

(c). How long have in this district as a manager ? _____

7(a). Have you been a member of district health management team before you were assigned to this district ?

1. Yes_____ 0. No____

(b) If Yes, for how long and where ? _____,_____

8. When was the district health management system established in this district?_____

9. Has the district health office a budget ?

1. Yes,_____ 0. No, _____

10(a). Do you get any kind of support from other organizations to support any of your activities ?

1. Yes_____ 0. No_____

(b) If Yes, Where does the support come from ?

1. The community ____ 2. The municipality ____

3. Other governmental sectors ___ 4. NGO's _____

5. Others (please, specify),_____

11. Do you have a district health management team ?

0. No, _____

2. Yes, But is not functioning at present, _____

3. Yes, functioning, _____

12(a) Do you have the job descriptions for each member of the district health management team ?

1. Yes,___ 0. No,___

(b) Do the job descriptions of the program coordinators state the required educational qualifications or experience ?

1. Yes____ 0. No____

13. Is there a health committee in the district ?

0. No_____

1. Yes, but not functioning (no activity or meeting for the last 3 months)_____ 2 . Yes , functional_____

14(a). Are you a member of the district health committee ?

0. No _____ 1. Yes

(b). If Yes

1. simple member 2. chairman

3. secretary

15(a). How often you participate, in training, workshops or seminars relevant for what you are doing ?

1. never____ 2. seldom,___

3. very often, _____

(b). How long has it been since your last training, _____

16(a). How often do you organize, training or refresher courses or work shops for your staff, including TBAs/CHAs?

1. never____

2. seldom (one per year)____

3. frequently (2 to 3 times per year)_____

4. very often (> 3 times per year)

(b). How long has it been since the last training, _____

(c). Who supported you in organizing the training ?

1. Regional health department, _____

2. The Ministry of Health, _____

3. The Municipality, _____

4. NGO's _____

5. Others (please specify),_____

17(a). Are there hospitals in your district ?

0. No ____ 1. Yes ____

(b). If your answer is Yes, read the health service activities stated in the following table. If it is given in the hospital mark ( ), and if not mark (x) on the space provided. If there is any co-ordination with the district office regarding the activities mark ( ) and if not mark (x) on the space provided.

Health service activities	Does the hospital give the service		Task co-ordination with the district health team	
	Yes	No.	Yes	No
1. Expanded program of immunization(EPI)				
2. Maternal and child health and family planing program (MCH/FP)				
3. Formal health education program				
4.Referral system with the health centres in the district				
5.Recording of vaccine preventable and other communicable disease				

18. Do you agree that, some of your colleagues in the district health management team are not adequately trained for the tasks you are doing ?

1. I totally disagree__ 2. I tend to disagree, _____

3. I tend to agree_____ 4. I fully agree,_____

19(a). Do you have a plan of action for the health related activities in your district for this year (1985 EC),_____

1. Yes 0. No

(b). Is it clearly stated ? 1. Yes 0. No

20(a). Are there definitions of the functions, responsibilities and authority of the members of District Health Management Team (including the manager) ?

1. Yes____ 0. No_____

(b). Are they clear ?

1. Yes____ o. No____

21(a). Do you agree that the DHMT functions as a technical body and gives technical decisions for implementation made at district level

1. I totally disagree____ 2. I tend to disagree____

3. I tend to agree____ 4. I totally agree____

(b). Can you please state your reason ?

_____

22. How many times per year do you under take supervisory activities ?

1. not at all_____

2. Two to three times per year____

3. Four or more times per year._____

23(a). How often do you get supervised (from the region or the ministry) ?

1. never____ 2. seldom_____

3. frequently _____ 4. very often _____

(b). Do you feel that you get sufficient information for your tasks ?

1. Yes___ 0. No ___

24(a). Do you have any co-ordination with other governmental sectors and non governmental agencies (NGOS), to implement your activities ?

1. Yes _____ 2. No _____

(b). Are they satisfactory ?

1. Yes _____ 2. No _____

25(a). Do you collect and analyze data on coverage of services and the impact of intervention ?

1. Not at all_____ 2. Some times_____

3. always_____

(b). If your answer is 2 or 3, how often in six months.____

26(a). How often is the team involved in health related activities, as ordered by the regional health department of the district administration.

1. never _____ 2. seldom _____

3. very often _____

(b). How many days ago was the last such activity _____

27(a). Are there any research activities which carried out by the district health office or the district health team ?

1. Not at all ____ 2. Yes but not completed___

3. Yes, and there are completed ones _____

(b). If your answer is 2 or 3, on which component of PHC?___

(c). If your answer is 2 or 3, have you tried to utilize the out come of this research in your district ?

1. Yes, _____ 0. No, _____

28. How often are you short of necessary drugs and equipment in the district ?

1. Never (enough for the year)_____
2. Seldom (enough for 9 months or more)_____
3. Frequently (enough for 6 to 8 months)_____
4. Very often (enough for 3 to 5 months)_____

29(a). How often does the district health management team meet ?

1. Every month_____ 2. Every two months_____
3. Every three months_____

(b). When was the last meeting ? _____

Please read the statements below concerning DHMT in your district and ask your elf weather you agree with the statement using the scale on the right side of the page,record the degree of your agreement with a cheek mark ( ) - one for each statement.

Thank you!

Statements	Scale				
	I totally disagree	I tend to disagree	I don't know	I tend to agree	I fully agree
1.The team objectives are clearly understood by the group					
2.The team is committed to wards its objectives.					
3. Our abilities, knowledge,and experience are well utilized					
4. Trust and mutual support is high among team member					
5.I know exactly what tasks I am expected to do at all times.					
6. We accept conflicts and work them through					
7. Communication among the group[is good. It is open, and genuine, we understand each other					
8. We analyze our experience and learn					
9. My partner in the team know exactly what I am expected to do at all times.					
10.My job is description has been reviewed and updated in last 3 years					

Statement	scales				
	I totally disagree	I tend to disagree	I don't know	I tend to agree	I fully agree
11. Our organizational environment is supportive.					
12. There is respect for differences					
13. We have a sense of belonging to the group.					
14. We want to work in it					

Questionnaire for Team Members

A. Identification

1. Date _____

2. Awraja (district)_____

3. Interviewer _____

B. Identification

1. How old are you _____

. Sex _____

2. Are your at present

1. Single____ 2. Married___

3. widowed____ 4. divorced_____

3. What is your level of education

1. Diploma_____ 2. BSc/BA_____

3. MD_____ 4. others(please specify)_____

4. Where did you complete your training ?

1. Addis Ababa___ 2.Jimma____

3. Gondar____ 4. Wellega (Nekemt)_____

5. Abroad____ 6 others (please specify) _____

5. What is your present professional category ?

1. Health assistant____ 2. Nurse____

3. Sanitarian_____ 4. Pharmacy technician_____

5. Laboratory tech.____ 6. Pharmacist_____

7. Physician_____ 8. Others (please specify)____

6. What is your total service year _____

7. Have you received other training relevant to your present task?

1. Yes ____, If yes, what was the training ? _____,and when____

0. No_____

8. What is your task distribution in the district health team /

1. EPI/Epidemiology coordinator_____

2. MCH/FP coordinator_____

3. Environmental health coordinator_____

4. Hospital and health centre service coordinator_____

5. Health station and health post service coordinator____

6. Drug and Traditional medicine service coordinator____

7. others (please specify)_____

9. In addition to the responsibilities stated under question No eight are you assigned to other tasks ?

1. Yes_____ 0. No_____

9. When did you join the team ?

1. less than 6 months_____

2.between 7 months and one year ____

3. more than a year but less than two years____

4. Two years and above____

11(a). Were you a member of another district health team before coming to this district ?

1. Yes ___ 0. No_____

(b). If yes, where was it ? _____

(c). For how long ?_____

(d). What was your specific task in the team ?_____

12(a). Do you have a plan of action for health and health related activities in the district for this year (1985)?

1. Yes_____ 0. No____

(b). Are they stated clearly?

1. Yes___ 0. No____

(c). If your answer is Yes, would you please state one action plan related to the programme you are coordinating. _____

13. Are there a clear definition of functions, responsibility and authority, for members of the district health team ?

1. Yes_____ 0. No____

(b). It is clearly stated.

1.Yes____ 0. No____

14. Do you agree that, the district health management team functions as a technical body, and can give decisions (like when, where and in which sequence it takes place), that needs to be made at district level

during implementations.

1. I totally disagree_____ 2. I tend to disagree_____

3. I tend to agree_____ 4. I fully agree_____

15. How often do you carry out supervisory activities of programmes under your coordination?

1. Four or more times per year_____

2. two to three times per year____

3. not at all____

16(a). Are there any kinds of formal or informal links between the team and other governmental and non governmental organisations with respect to implement your activities ?

1. Yes____ 0. No____

(b). Do you feel, That they are satisfactory?

1. Yes____ 0. No____

(c). If No, Why ? _____

17(a). Do you collect data on the coverage of your specific programme and the impact of the intervention ?

1. not at all_____ 2. some times_____

3. always_____

(b). Do you analyze the data ?

1. Yes____ 0. No____

(c).How often in the past six months? (if your answer is 2 or 3)__

(d).Do you use it is as a feed back for your activities?

1. Yes____ 0. No____

18. How often are you involve in activities like visiting local schools, factories, or preparing neighbourhood cleaning days and giving health education in local population gatherings

1. Never_____ 2. seldom____

3. very often___

(b). Days ago of last such activities _____

19. Have you ever been delegated as an acting district health manager in the absence of the district health manager ?

1. Never_____ 2. Seldom _____

3. Very often _____

20. Has there been any training, seminars or refresher courses organized by the team in last six months?

1. Yes____, If yes, Would you please specify_____

0. No_____

21(a). Are there hospitals in your district ?

1. Yes___ 0. No _____

(b). If yes, read the following health service activities stated in the table. If it is given in the hospital mark ( ), and if not mark (x) on the space provided. If there is any co-ordination with district health management team regarding the activities mark ( ), and if not mark (x) on the space provided

Health service activities	Does the hospital give the service		Take co-ordination with the district team	
	Yes	No	Yes	No
1. Expanded programme of immunization (EPI)				
2. Maternal and child health/family planing programme (MCH/FP)				
3. Formal health education programme				
4.Referral system with the health centres in the district				
5.Recording of vaccine preventable and other communicable diseases				

22. How often are you short of supplies necessary for carrying out your programme ?

1. never (enough for the year)_____
2. seldom(enough for nine months)____
3. frequently (enough for 6 to 8 months)_____
4. very often (enough for 3 to 5 months_____

23(a). Do you have regularly scheduled meetings of the team ?

1. Yes____ 0. No____

(b). If yes, how often ?

1. every month ____ 2. every two months_____

3. every three months or more_____

(c). When was your last meeting ?_____

24(a). How often do you discuss the experiences of each programme?

1. never____ 2. seldom____

4. very often____

(b). Do you use it as a feed back ?

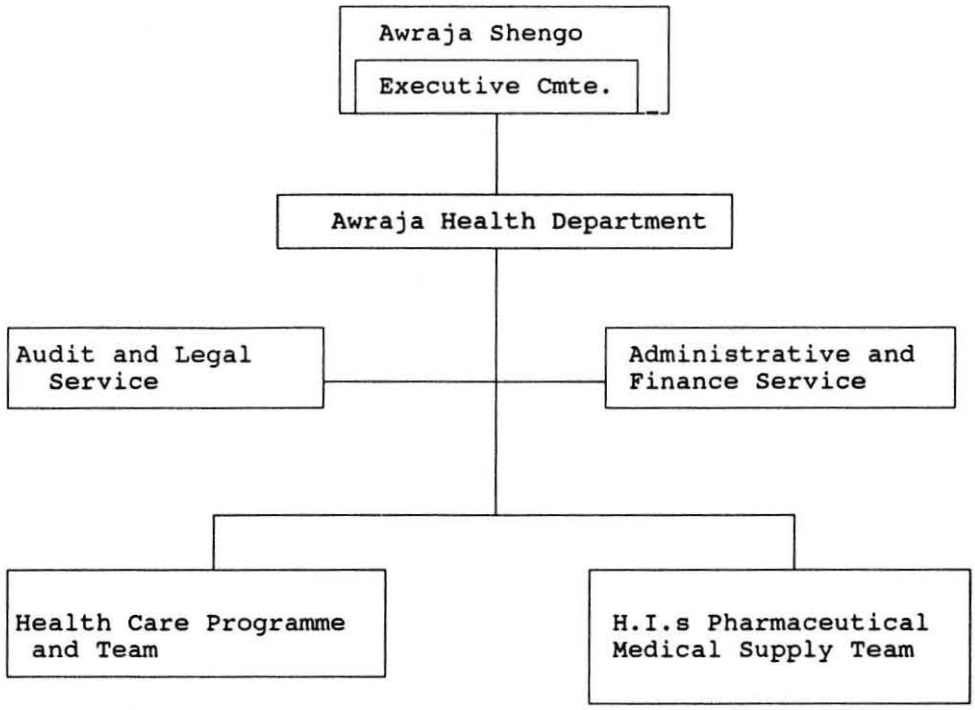
1. Yes____ 0. No____

24. Do you feel that you get sufficient information for carrying out your tasks from the regional health department or the Ministry of Health ?

1. Yes____ 0. No_____

Annex IX

Official Awraja Health Department Organogram (1989)



- Family Health Service Co-or.
- Epidemiology Co-or.
- Environmental Health Co-or.
- Hospital & Health Centre Service
- H.Stns. & H.Ps. Service
- Drug & Trad. Med. Service.

Co-or = Coordinator
H.Stns = Health Stations
H.Ps = Health Posts
Trad. Med. = Traditional Medicine

DECLARATION

I, the undersigned declare this thesis is my original work and has not been presented for a degree in this or any other university and that all sources of materials used for this thesis have been duly acknowledged.

Name Mahdi Bekri

Signature _____

Place Addis Ababa

Date of submission _____

This thesis has been submitted for examination with my approval as University Advisor.

Dr. David Zakus _____

Advisor