COMMUNITY HEALTH SERVICE IN ETHIOPIA: USE OF COMMUNITY HEALTH AGENTS AND TRADITIONAL BIRTH ATTENDANTS IN SIDAMA AWRAJA, (SIDAMO)

A Thesis Presented to the School of Graduate Studies of Addis Ababa University, in Partial Fulfillment of the Requirement for the Degree of Master of Public Health.

by

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"Community Health Services in Ethiopia: Use of Community Health Agents and Traditional Birth Attendants in Sidama Awraja".

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ABSTRACT

Since the launching of the Primary Health Care Program in Ethiopia, 6717 Community Health Agents (CHAs) and 6107 Traditional Birth Attendants (TBAs) have been selected by their local communities and trained by the Ministry of Health. Then they were sent back to their respective localities and expected to perform disease prevention, health promotion and rehabilitation services.

In Sidamo Administrative Region, 436 CHAs and 632 TBAs have been trained. Out of these, 118 CHAs and 236 TBAs are found in Sidama Awraja (province). Thus to find out how effectively they are being used 20 peasant associations which have both CHAs and TBAs were studied.

Out of the total number of CHAs and TBAs that were trained in the region, only 117 (26.8%) of the CHAs and 242 (38.3%) of the TBAs were found working in the entire region. Similarly 34 (28.8%) of the CHAs and 117 (49.6%) of the TBAs were found working in Sidama Awraja.

The CHAs who were working, with the exception of Wacho, were found to have a problem with recording preventive activities performed in their localities.

Over 90% of the TBAs were not able to identify the most common signs of pregnancy and the dangerous signs of pregnancy. In addition, only two of the TBAs mentioned that they washed their hands before touching the woman during labor. Only one TBA mentioned the importance of sunshine. One stated how she managed a retained placenta and none of them mentioned anything about child spacing.

It is therefore, suggested that a strong national policy for training and support for the use of CHAs and TBAs be formulated.

1. INTRODUCTION

In Ethiopia as elsewhere in developing countries communicable diseases, deficiency diseases and the problem of unhygienic environment predominate. The great burden of these problems falls largely on rural areas where the majority of the population (88.7%) live and work. (1).

When the features of health services in our country are looked upon we find that more health facilities are located in the big towns, some of which absorb two thirds of the already limited resources. On the other hand in rural areas people have to travel a long distance to obtain treatment or remain behind to depend on traditional healers and herbalists for their health. (2).

It is clear that many of these problems have long been dealt with in developed countries through the tremendous achievements of science and medicine. (3). Hence to close this gap and give a remedy to achieve a universal coverage, the World Health Organization (WHO) called for a new approach, "Health For All By the Year 2000." (4). This is to be acheived by the Primary Health Care approach which emphasizes equitable distribution, active community participation, use of appropriate technology, multisectoral coordination and focus on prevention. It is in this sense that many countries in the developing world including Ethiopia have committed themselves to implement the strategies of the slogan "Health For All By the Year 2000."

The health service structure of Ethiopia has a broad base with community health service at the bottom and it is staffed by CHAs and TBAs.

The Community Health Agent is one who can read and write, understands the local situation and is willing to work for the community. He or she is selected by the community members to be trained as a Community Health Agent; then is trained by the Ministry of Health for three or six months. He/she is expected to be paid in cash or in kind by the community where he or she is selected from and trained for. The community is expected to provide a working room or hut to be used only for the health activities.

Expected activities to be performed are:

- provision of health education depending on the local conditions
- initiating and encouraging the community members for health activities such as latrine construction, provision of safe and clean drinking water, promotion of nutrition, and carrying out sanitation activities.
- provision of maternal and child health services
- carrying out vaccination program
- control of communicable diseases that usually arise in an epidemic form
- giving treatment for minor illnesses and sending those beyond his capacity to the nearest health unit
- collecting health information and reporting the performed activities to the nearest health unit

The Traditional Birth Attendant is one who is known in the community for her/his experience in attending birth for several years but is lacking aseptic technique during delivery attendance.

She or he is selected by the community members to be trained as a trained TBA and then is trained by the Ministry of Health for two or three weeks. The TBA is expected to perform activities such as:

- attending normal deliveries keeping aseptic technique
- referring those with difficult and abnormal labor as early as possible to the nearest health unit
- providing maternal and child health services
- identifying the high risk mothers as early as possible
- collecting health information
- reporting the performed activities to the CHA or nearest health unit

Up to the end of 1977 Ethiopian Calendar a total of 6717 CHAs and 6107 TBAs were trained and sent back to their respective communities. (Personal Communication, Ato Tsegaye Alemu, Ministry of Health) When one looks at the activities that are expected to be carried out by CHAs and TBAs one sees that almost all the activities are disease preventive and health promotive which can be performed at the grass root level. This is aimed at keeping the physical, mental and social well-being of an individual, and for that individual to lead a "socially and economically productive life." (5,6).

Andersen (7) states that community health service encompasses many medical and self-care activities such as coordination and integration of those activities which are directly related to the health of the community. This means that community health is concerned with the availability and

accessibility of health care for all rather than the individual few.

Therefore, a growing concern with the national health condition demands an appropriate response in meeting the needs of the people. For example in Ghana (8) a three-tier system of health manpower development is being carried out to solve the problem of unwillingness of highly trained personnel to work in the rural community where the utmost need is. (8,9,10,11).

Rahnema (9,P10) clearly states that, although they can be useful, good hospitals or highly qualified doctors alone cannot do much to bring about the implementation of health care and cannot provide the health needs of the many. The reason is that the majority of those in need of health care live mostly in rural communities.

WHO (12) in Guidelines for Training Community Health Workers in Nutrition states that in developing countries the majority of the rural population do not receive even the most basic care and they are malnourished from the very first day of life. It is true that if a person is not healthy he cannot produce enough to eat. If he does not eat enough he is not healthy.

Thus to close the gap that exists between the urban and rural and to bring equitable distribution, these front-line workers (CHAs and TBAs) are the main instruments in the development of health services in the community. But they need to be motivated, encouraged, well supported and recognized in their communities.

As we all very well know, community health encompasses all health and health related activities such as education, agriculture, human

ecology (environmental sanitation), water supply and safe housing conditions.

However, this thesis does not include all the health and health related activities but it tries only to identify the health aspects in relation to community health service in rural communities in the light of Primary Health Care.

1.1 Background Information

Ethiopia is situated in the northeastern part of Africa in the area known as the "Horn of Africa." The geographical boundaries of Ethiopia are the Red Sea coast in the northeast, Sudan in the west, Kenya in the south, the Republic of Somalia and Djibuti in the east.

Ethiopia's surface area is 1,251,200 square kilometers with varied elevations ranging from 100 meters below sea level at the Danakil Depression to 4620 meters above sea level at the Ras Dejene Peak in the Semien Mountains. (13,14,15,16).

Three kinds of climatical zones are experienced in the country. Namely, "kolla," "wainadega" and "dega." The "wainadega" and "dega" zones comprise temperate and cold weather conditions which usually carry heavy rains. The "kolla" zone represents the lowland areas of the country where hot and dry weather with scarce rainfall predominates.

There are 14 administrative regions and Asseb Administration which are further divided by 102 awrajas. ( ). These are again divided into 572 woredas (districts). The woreda is the smallest administrative unit. (17).

According to May, 1984, National Census, the total population is 42,019,413 with a density of 33.6 persons per square kilometer. Out of the total

population 37,276,563 (88.7%) live in rural areas and 4,742,855 (11.3%) in urban areas. The male population amounts to 20,948,670 and the female population 21,071,141. The sex-ratio of the population in urban areas is 86 per 100 females and in rural areas 101 per 100 females. However, for overall population it is 99 per 100 females. (18). The rate of natural increase is 2.8 %. (18, P. vii).

Table I gives the distribution of population in each Administrative Region and Table II gives the distribution of population by age and sex. It should be noted that the surface area of each administrative region and the density of the population in each region are given. (2, 18 P.viii).

Table I. Population Distribution by Administrative Regions in '000.

Administrative Regions	No. of Persons		Total Population	Area in $Km.^2$	Density of Pop.
	Urban	Rural			
Arsi	133.1	1,529.1	1,662.2	24.1	69.0
Bale	77.2	929.3	1,006.5	127.1	7.9
Eritrea	407.1	2,207.6	2,614.7	93.7	28.0
Gondar	223.6	2,681.8	2,905.4	79.6	36.5
Gojam	263.4	2,981.5	3,244.9	61.2	53.0
Gamo Goffa	73.3	1,174.9	1,248.0	40.3	31.0
Hararghe	314.6	3,837.1	4,151.7	272.3	15.3
Illubabor	66.2	897.1	963.3	46.4	20.8
Kefa	150.8	2,299.5	2,450.4	56.6	43.3
Shewa	749.2	7,341.3	8,090.6	85.0	95.2
Sidamo	249.2	3,541.4	3,790.6	119.8	31.6
Tigray	198.0	2,211.7	2,409.7	64.9	37.1
Wolo	250.1	3,359.8	3,609.9	82.1	44.0
Wolega	143.4	2,226.3	2,369.7	70.5	33.6
Asseb Admin.	31.0	58.3	89.3	27.4	3.3
Addis Ababa	1,412.6	----	1,412.6	.2	7063.0
Total	4,742.9	37,276.6	42,019.4	1251.2	33.6

Source ; Ministry of Health, 1986. Comprehensive Health service Directory, P.VIII.

Table II. Population by Age and Sex in '000.

Age Group	POPULATION					
	Male		Female		Total	
	Number	%	Number	%	Number	%
0-4	3,718.3	17.6	3,761.9	17.8	7,480.2	17.7
5-9	3,441.8	16.3	3,397.7	16.1	6,839.5	16.2
10-14	2,755.0	13.1	2,563.1	12.1	5,318.0	12.6
15-19	1,972.4	9.4	1,846.2	8.7	3,818.6	9.1
20-24	1,449.2	6.9	1,588.6	7.5	3,037.9	7.2
25-29	1,214.7	5.8	1,515.8	7.2	2,730.5	6.5
30-34	1,136.6	5.4	1,341.7	6.3	2,478.3	5.9
35-39	1,045.3	5.0	1,152.0	5.4	2,197.3	5.2
40-44	924.0	4.4	959.0	4.5	1,882.9	4.5
45-49	769.0	3.6	756.3	3.6	1,525.2	3.6
50-54	642.5	3.0	595.3	2.8	1,237.8	2.9
55-59	537.4	2.5	464.3	2.2	1,001.7	2.4
60-64	461.6	2.2	381.7	1.8	843.3	2.0
65 +	1,013.2	4.7	775.6	3.6	1,788.8	4.3
Total	21,080.6	100.0	21,104.3	100.0	42,185.0	100.0

Source: Central Statistical office, 1984.

Note:- The variation seen in the total population size is because of different sources used in the study.

The country's economy is primarily agricultural and pastoral. It is estimated that over 90% of the population is engaged in farming which is carried out in two sectors: peasant (farmers) production and state farms (government) production.

Cereals, pulses, oil seeds, fruits, vegetables and coffee are the main products. In 1983/84 a total of 5,774,400 hectares of land were cultivated and 64,179,600 quintals of crops were produced. (19). Coffee, hides, skin, oil seeds, fruits and vegetables are exported. Imports include finished goods, petroleum and other raw materials.

There are a number of rivers which could develop the economy of the country if potentiated well. In addition, around the Rift Valley areas, quite a number of lakes abundant in fish and enormous amount of unexploited thermal power exist. Efforts are being made to develop the industrial and mining sector of the country's economy.

Train, bus and air transportation services are provided to enhance communication.

It is estimated that 8.2% of the population is using latrines and 6.2% is using safe water. (20).

Utmost efforts are made to organize both urban and rural populations into their respective associations, that is, the peasant associations and the urban dwellers associations. The peasant association is made up of a group of farmers from one or more kebeles (communities). A kebele is an area consisting of 40 hectares with a minimum number of 80 families. Depending on their economic level the farmers associations are organized into service cooperatives and producers cooperatives. The details are beyond the scope of this paper. Hence up to the end of 1977 Ethiopian Calendar, 20,157 peasant associations, 3964 service cooperatives and 1856 producers cooperatives have been organized. (21). Similarly the urban dwellers, depending on the size of the population and status of the town are organized into kebeles, higher and municipal associations. Up to the end of 1976 Ethiopian Calendar 1239 kebeles, 204 higher and 27 municipal associations have been organized. (22). The task and efforts of organizing the people in the political, social and economic spheres continued and at present the Workers Party of Ethiopia (WPE) is giving overall leadership in the country.

1.2. Organization of Health Services

Historically, firm and formalized health services began in Ethiopia when "Bureau de L' Hygiene Publique" was established in 1906. (13,23). It was followed by the organization of the Ministry of Health in 1948 by the Order No. 4 indicating the government's full responsibility for the delivery of health care to the people. (13 P.16). There were four Five Year Development Plan Periods prior to the Revolution of which the second Five Year Plan gave due consideration to health. After the Revolution, the National Democratic Revolution Program came into being giving a guiding principle for provision of health services which is clearly stated, "To ensure full and meaningful life for the broad masses, all the necessary efforts will be undertaken to provide adequate health services." (24).

Based on this, the Ministry of Health formulated its policy focusing on prevention and control of communicable diseases giving priority to the rural areas.

To achieve this, the Ministry of Health has organized a six-tier health service system and this is shown in Figure 1.

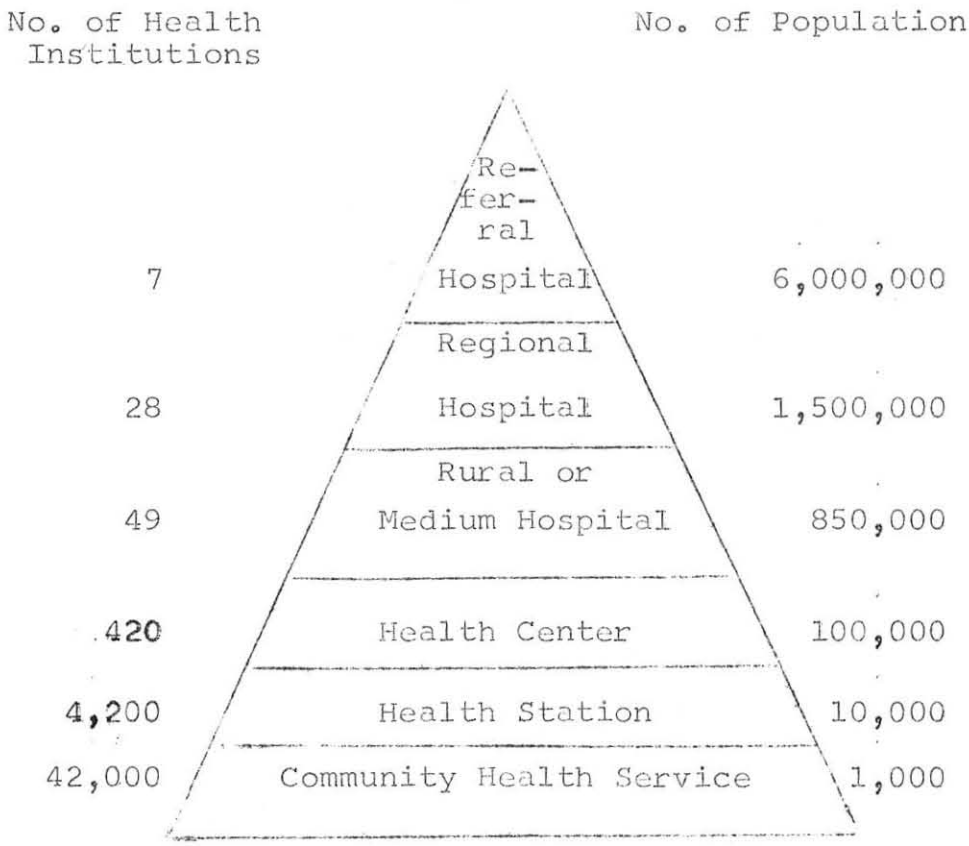


Figure 1. Six-Tier Level of Health Services System with Estimated Number of Health Institutions and the Population. (24) •

1.3. Major Health Problems

As it was mentioned above, major health problems in our country are communicable diseases and diseases of nutritional deficiencies. Seventy-five to eighty percent of these problems affect the people in one or another way. (13 P.3) . Single room houses built without proper ventilation which are also used for all types of household services create a suitable breeding place for flies, mosquitoes, bedbugs, lice and fleas. As the result debilitating and killing diseases flare up. In addition, inadequate water supply, some of the living habits, lack of concern and proper planning, lack of relevant and adequately trained health personnel, inadequate funds both for construction and use of health facilities and geographical barriers play an important role in worsening the health condition.

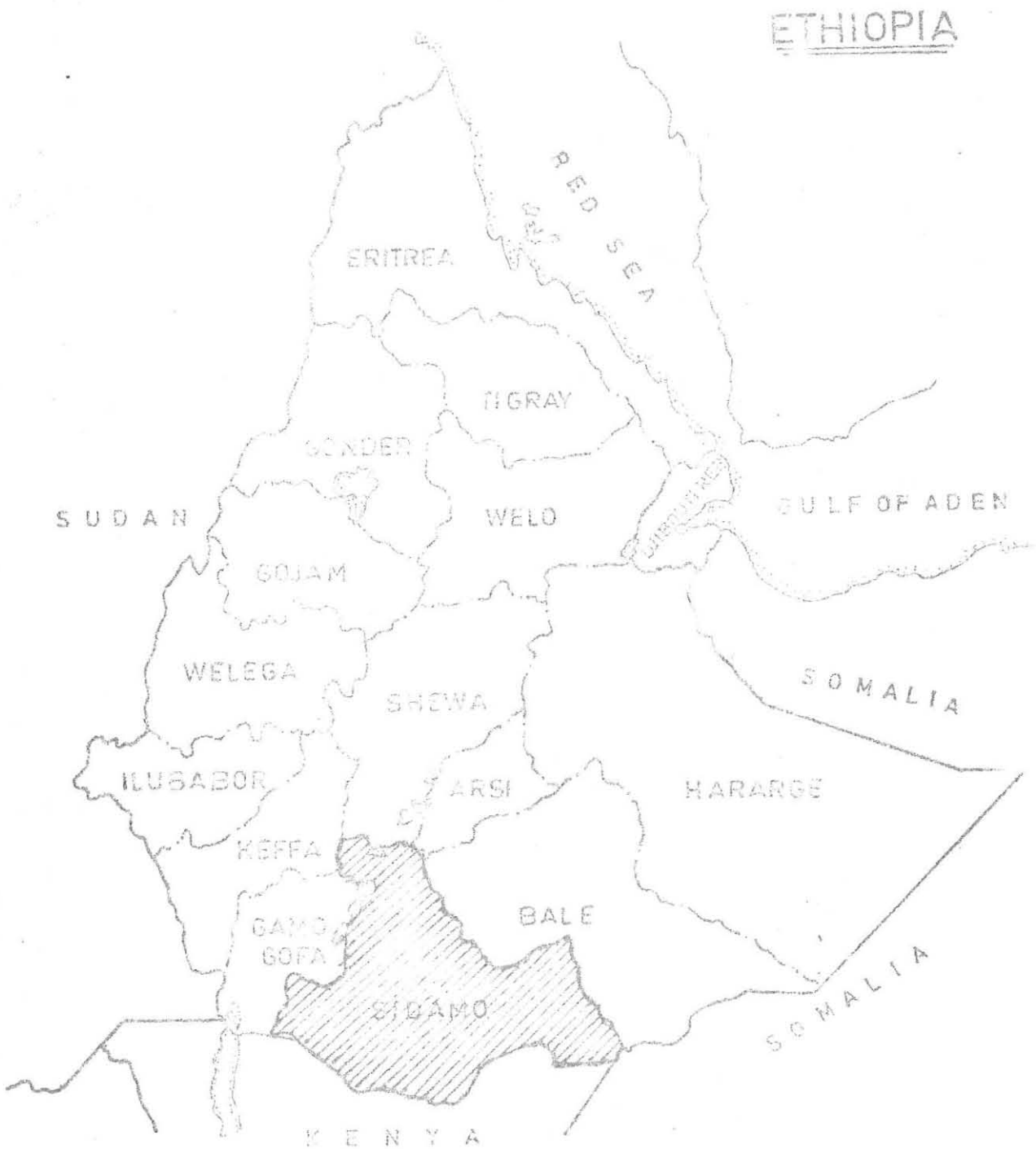
1.4. Vital Statistics

Crude Birth Rate	46.0/1000 population
Crude Death Rate	18.1/1000 population
Rate of Natural Increase	2.8 %
Infant Mortality Rate	144.0/1000 live births
Child Mortality (1-4 years)	92.0/1000
Life Expectancy at Birth	46 years (25).

1.5. Others

Health Service Coverage	43 %
Literacy Rate	63 %
Percentage of National Health Budget for the year, 1976 Ethiopian Calendar	4.4 % (18 P.7).
Per Capita for Health in Birr	2.19 (18 P.10).

Figure 2 shows the map of Ethiopia with its 14 Administrative Regions and neighboring countries.


ETHIOPIA
RED SEA
ERITREA
TIGRAY
GONDER
SUDAN
WELO
GULF OF ADEN
GOJAM
WELEGA
SHEWA
SOMALIA
ILUBABOR
ARSI
HARARGE
KEFFA
BALE
GAMO GOFA
SIDAMO
SOMALIA
KENYA
SCALE 1:10000000
Study Region

1.6. Objectives of the Study

The National Census of May, 1984, revealed that 88.7% of our population lives in rural areas where 75-80% of our health problems predominate. It is believed that 80% of these health problems could be prevented by using simple preventive measures and appropriate technology. Therefore, a number of CHAs and TBAs are deployed to carry out the activities that were mentioned above. The general objective of the study is to find out how effectively the CHAs and TBAs are being used and functioning.

1.6.1. Specific objectives

1.6.1.1. to identify whether the trained CHAs and TBAs are performing the activities they are expected to do.

1.6.1.2. to identify types and characteristics of CHAs and TBAs

1.6.1.3. to identify the appropriate support needed to facilitate the community health service.

1.6.1.4. Based on the findings, to suggest possible recommendations that would help to develop and strengthen the community health service.

2. MATERIALS AND METHODS

Sidama Awraja in Sidamo Administrative Region was the study area. The study subjects were CHAs and TBAs, members of Peasant Associations and peasants in the selected Peasant Associations.

The reasons for selecting Sidamo Administrative Region are:

- Sidamo has trained a relatively large number of CHAs and TBAs next to its neighboring Administrative Region, Bale
- Surveys on the use of CHAs and TBAs were not yet done as they were in the two adjacent regions, Bale and Gamo Goffa.
- Observationally, it has different economic background from others, for example, Bale.
- It has a relatively better economic potential for development.

2.1. Background Information about Sidamo

Sidamo is one of the 14 administrative regions and is located in the southern part of Ethiopia. The capital town, Awasa, at a distance of 275 kilometers, is connected with Addis Ababa by asphalt road. The same road connects Kenya with Ethiopia at Moyale at a distance of 500 kilometers from Awasa or at 775 kilometers from Addis Ababa.

The geographical boundaries are: Arsi and Shoa in the north, Bale in the east, Gamo Goffa and Keffa in the west, Somalia in the east and Kenya in the south. Surface area of the region is 119,800 square kilometers. Administratively it is divided into six awrajas and 34 woredas. According to May, 1984, census the total population

is 3,790,579 with a density of 31.6 persons per square kilometer. (2) .

Diversified nationalities like Sidama, Walaita, Gedeo, Oromo, Burji, Amhara and Gurage inhabit the region. (26). Like any other part of the country three types of climatical conditions are experienced in the region. The Rift Valley passes through it down to Kenya. Heavy rainfall takes place from June to September. Cattle rearing in the lowland areas and enset growing in the northern highland areas are some of the known occupations. Coffee is a cash crop and enset is the staple diet. The region ranks second to Keffa in coffee production. In addition, it is known for its gold mining project.

Lake Abaya, the second largest lake in the country which has abundant fish is located in this region. Lake Awasa is another lake to be mentioned for its tourism attraction.

Land transport, postal and telecommunication services are available. In general, the region is rich in economic potential.

There are five hospitals, 11 health centers and 150 health stations. Health personnel of all types working in these health institutions are 576. Four hundred and thirty six CHAs and 632 TBAs have been trained in the region.

Table III shows the total population of the region by age and sex.

Table III. Population Distribution by Age and Sex in '000 (Sidamo Administrative Region) 1984, CSO.

Age Group	Population					
	Males		Females		Total	
	Number	%	Number	%	Number	%
0-4	323.4	17.0	335.5	17.8	658.9	17.4
5-9	353.8	18.6	334.4	17.7	688.2	18.2
10-14	281.3	15.0	255.7	13.6	537.0	14.2
15-19	183.6	9.6	171.8	9.1	355.3	9.4
20-24	127.7	6.7	143.5	7.6	271.1	7.1
25-29	105.0	5.5	137.7	7.3	242.7	6.4
30-34	91.7	4.8	117.7	6.2	209.4	5.5
35-39	82.2	4.3	100.0	5.3	182.2	4.8
40-44	75.3	4.0	84.3	4.5	159.6	4.2
45-49	64.7	3.4	63.4	3.4	128.2	3.4
50-54	51.0	3.1	43.2	2.3	94.1	2.5
55-59	41.3	2.2	28.5	1.5	69.9	1.8
60-64	37.6	2.0	23.1	1.2	60.6	1.6
65+	85.7	4.5	47.7	2.5	133.4	3.5
Total	1904.2	100.0	1886.3	100.0	3790.6	100.0

Figure 3 shows map of Sidamo Administrative Region with its six awrajas and neighboring administrative regions.

Figure 4 illustrates the Organizational Chart of the Regional Health Department.

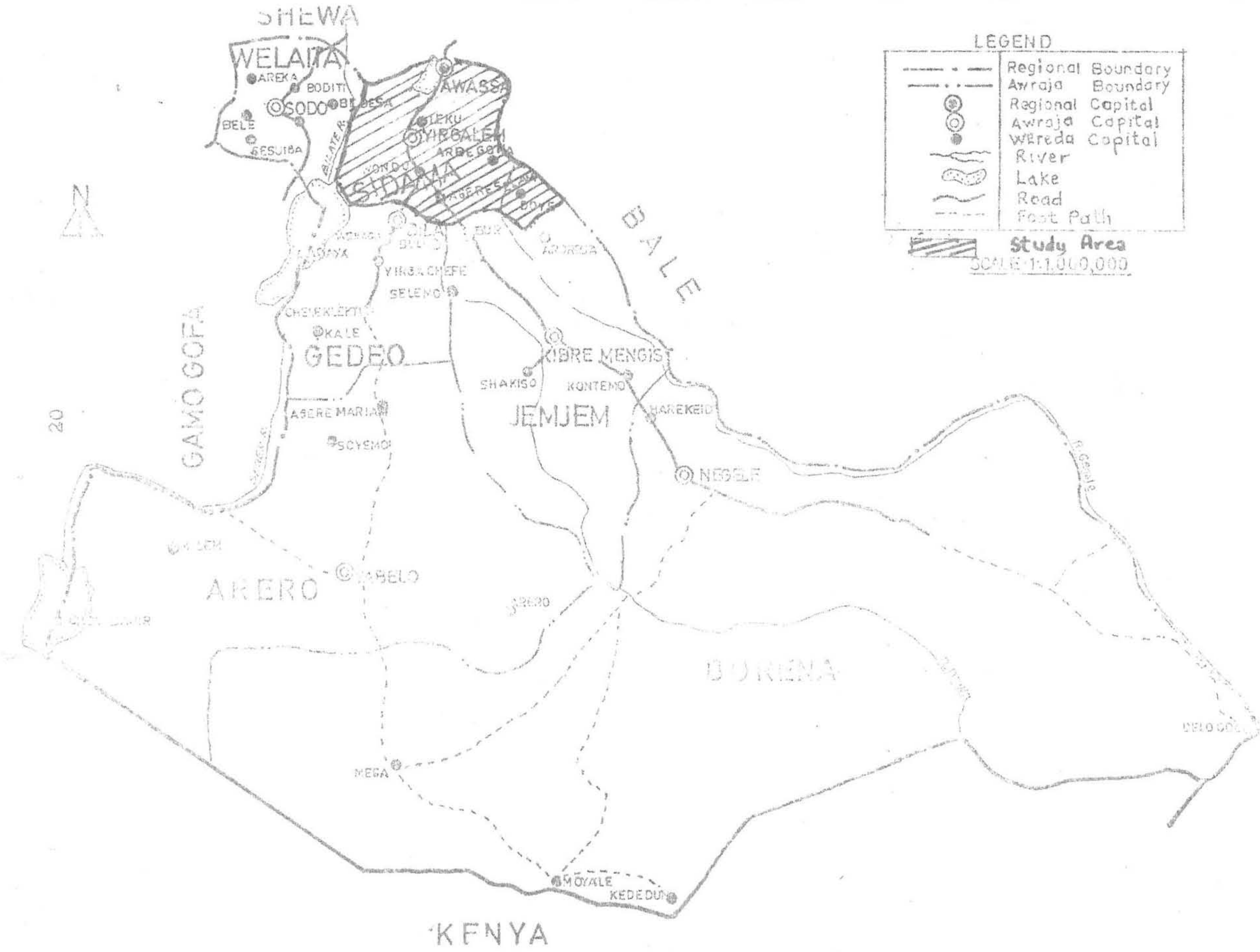
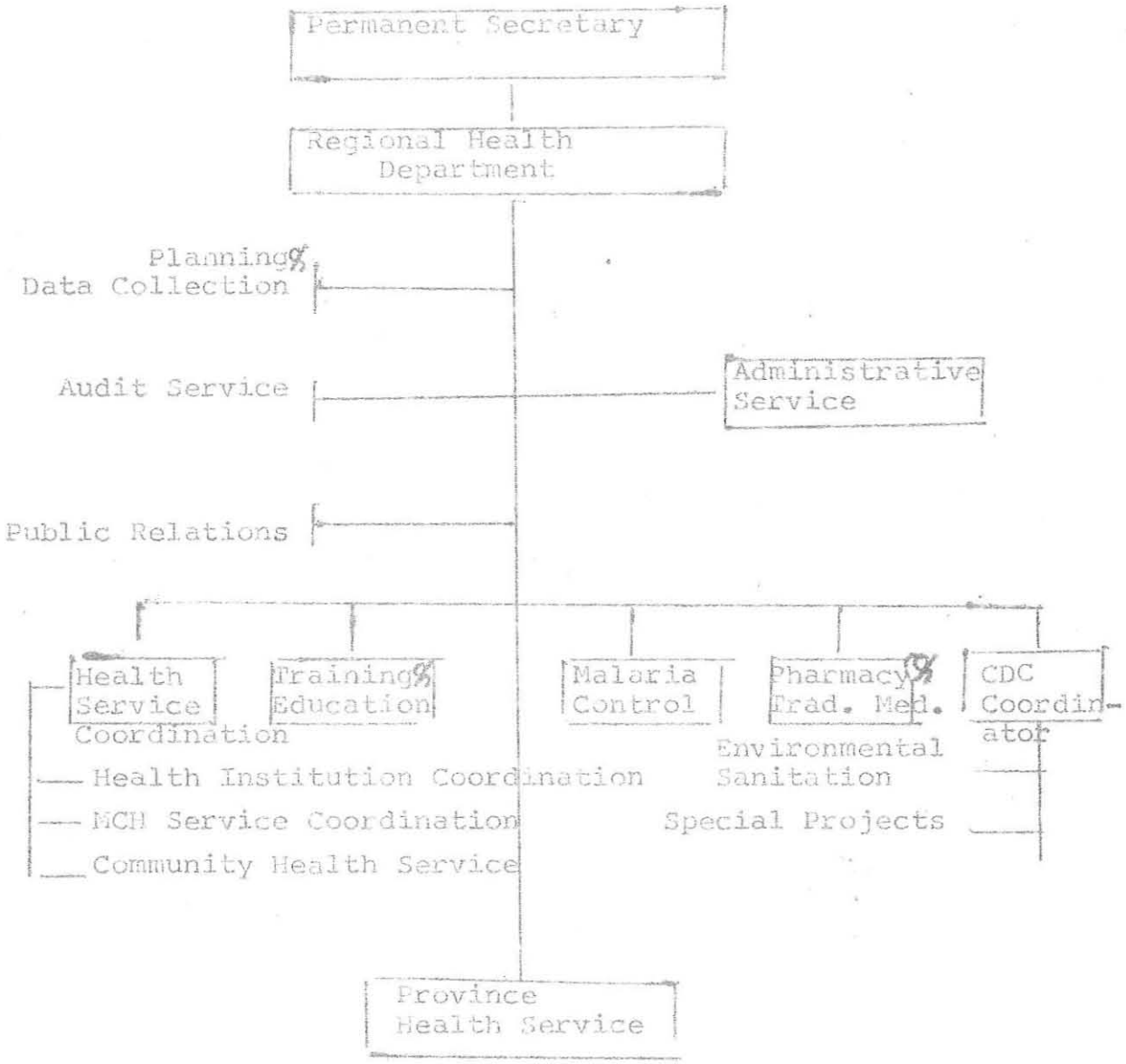

SHEWA
WELAITA
AREKA
BODITI
SODO
BELE
SESUIBA
AWASSA
LEKU
YIRGALEM
ARBE GONA
SIDAMA
AGERESALAM
BOYE
DILA
YIRGA CHEFE
SELENO
KALE
GEDEO
ASERE MARIAM
GAMO GOFA
20
BALE
KIBRE MENGIST
SHAKISO
KONTEMO
JEMJEM
HAREKEID
NEGELE
YABELO
ARERO
BORENA
MEGA
MOYALE
KEDEDUN
KENYA
N
LEGEND
Regional Boundary
Awraja Boundary
Regional Capital
Awraja Capital
Wereda Capital
River
Lake
Road
Foot Path
Study Area
SCALE 1:1,000,000

Figure 2. Organizational Chart of Regional Health Department, 1971 E.C.



Source: Ministry of Health, Addis Ababa

2.2 Sidama Awraja

Sidama Awraja is one of the six awrajas of Sidamo Administrative Region with a surface area of 6794 square kilometers. Shoa and Arsi Administrative Regions border on the north and northeast, Bale Administrative Region and Jemjem Awraja in the east, Gedeo Awraja in the south and Walaita Awraja in the west.

There are 8 woredas administratively which are connected by all weather roads with the awraja capital, Yirgalem. Telephone communication and postal services are available. The addis Ababa-Nairobi road cuts and passes through it.

Sidama Awraja is well known for its coffee growing as a cash crop and "enset" for staple diet. Maize, sorghum, wheat and other cereals are also grown. The total population of the awraja is 1,415,830 with a density of 208.4 persons per square kilometer. It is mainly inhabited by a rural population which makes a total of 94.3%. Of the total population, 714,708 are males and females are 701,122. Children under five years of age make up 648,170. (27). The awraja population is organized into mass organizations like any other part of the region.

Number of Peasant Associations	529
REWA	547
REYA	567
Service Cooperatives	88
Urban Dwellers Associations	37
Total	1768

2.3 Additional Highlights

2.3.1. Education

- Elementary Schools (1-6)	181
- Junior high schools (7-8)	8
- Senior high schools (9-12)	4
- Junior Agriculture College	1
- Vocational Training School	1
- Kindergarten	14
Total	209

2.3.2. Health facilities

- Hospital	1
- Health Centers	2
- Health Stations	37
- Community Health Services	33
- Health Assistant School	1
Total	74

2.3.3. Available health personnel

- Medical Doctors, all types	8
- Nurses, all types	35
- Health Assistants	108
- Sanitarians	2
- Laboratory technicians	4
- Community Health Agents	118
- Traditional Birth Attendants	236
Total	511(28).

Common health problems in the awraja are not different from other areas of the country. Communicable diseases, nutritional problems, diarrheal diseases, respiratory infections and malaria are some of the main problems to be mentioned.

Figure 5 shows map of Sidama Awraja with its woredas and neighboring awrajas.

Figure 6 indicates the Organizational Chart of province and district health services.

SIDAMA· AWRAJA.

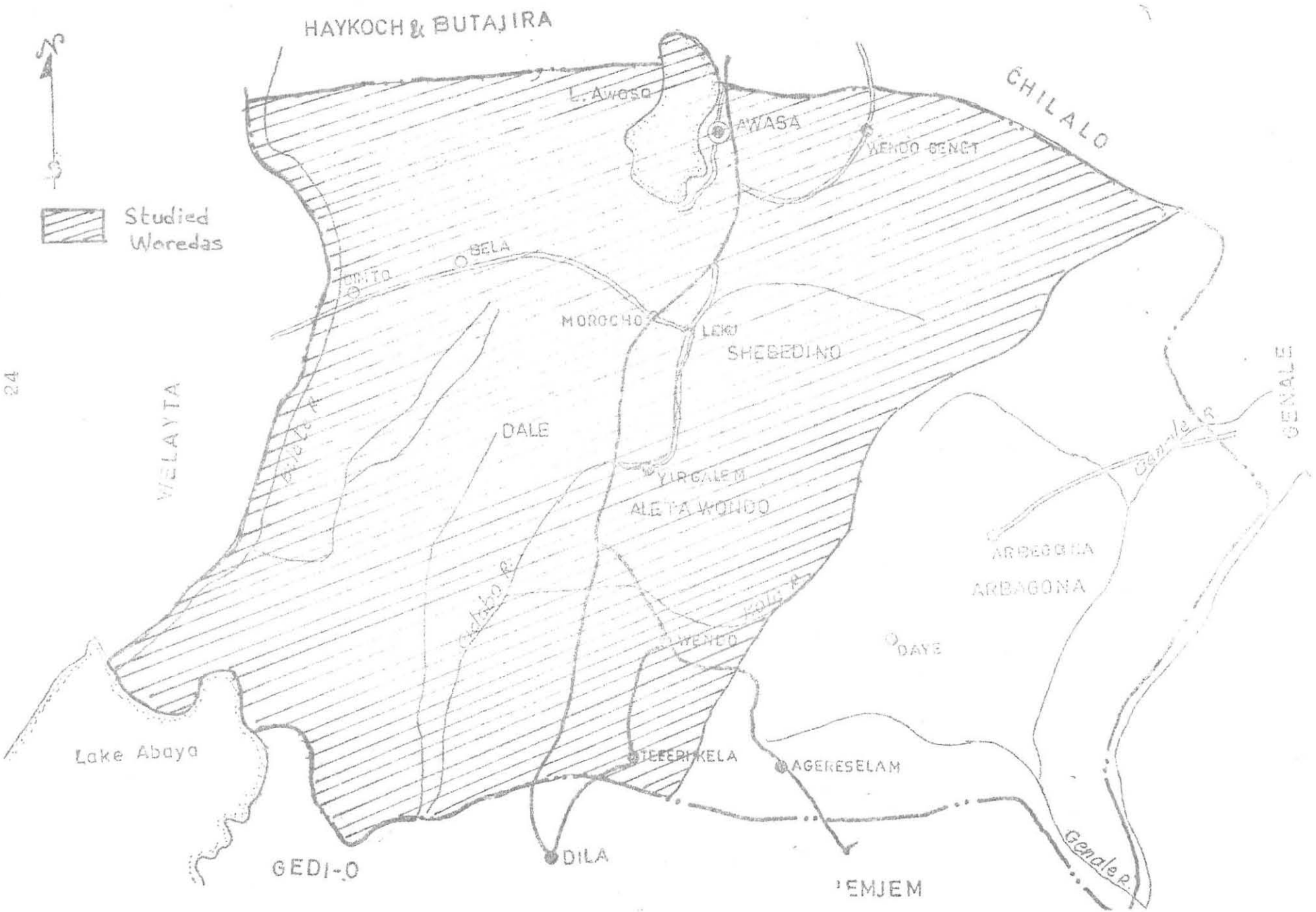
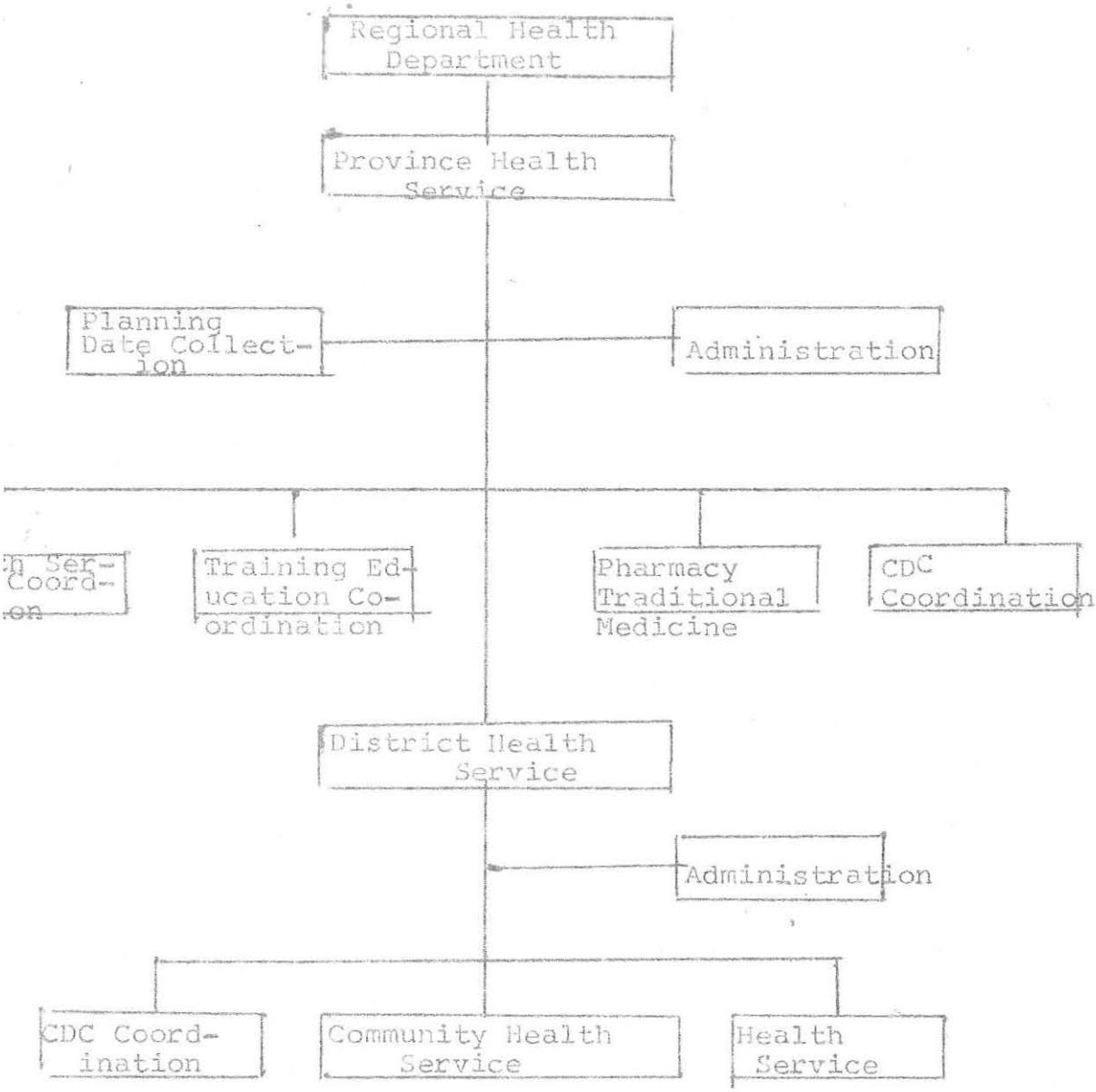


Figure 6. Organizational Chart of Province and District Health Services, 1971 E.C.



Source: Ministry of Health, Addis Ababa

In Sidamo from Hamle 1, 1972 to Sene 30, 1978 Ethiopian Calendar, 436 CHAs and 632 TBAs were trained and sent back to their respective communities. Out of these, 118 CHAs and 236 TBAs were found in the study area, Sidama Awraja, at the time of the study. The reasons for selecting Sidama Awraja were the same as those for choosing the region.

Appropriate criteria for inclusion or exclusion in the study were established. The first criterion was to include the peasant associations which have one or more CHAs and one or more TBAs jointly. The second criterion was to include CHAs and TBAs who were trained and sent back to their respective peasant associations since Hamle 1, 1972 to Sene 30, 1978, Ethiopian Calendar inclusive.

Based on these criteria 54 peasant associations with one or more CHA and 77 peasant associations with one or more TBAs were identified in the awraja. Out of these, 42 peasant associations were found to fulfill the established criteria. However, 22 were found that they could not be reached by the investigator because of serious logistic problems. These problems were: lack of funds, lack of time, inavailability of transport, shortage of manpower, and inaccessibility. Hence, they were excluded from the study. Finally 20 peasant associations were left which made 48% of the peasant associations that fulfilled the established criteria. Stratification of the 22 which were inaccessible was also thought of but because of the limitations mentioned above, it was decided to include only the 20 peasant associations in the study.

For the data collection three types of questionnaire forms, Form No. 1 for CHA, Form No. 2 for TBA and Form No. 3 for the peasant associations were prepared in Amharic. Directions were stated on the forms on how to collect the data. That is,

to use a pencil and make a check mark in the space provided and fill in the blanks with one or two words where needed.

According to the project proposal, when the date for interview approached, an official letter and money for transport and per diem were obtained from the Department of Community Health in the Medical Faculty. Then the interview took place accordingly.

The questionnaires were pretested on a similar population in the same region and in the same awraja. The necessary amendments were made before the data collection took place.

The data were collected by myself and three interpreters who were senior Health Assistants. They spoke the Sidamo language fluently. Since the language was their mother tongue, a language problem was not observed during the data collection. The interview was preceded in each study locality by an introduction including who we were and why we were there. The interview period was from Sene 25 to Hamle 10, 1978 Ethiopian Calendar.

The interview took place in usual working places, that is, at home, in health posts and offices. Utmost effort was made to keep the interview area suitable so that the CHAs and TBAs could freely respond.

A check (✓) mark in the space for appropriate answer was used. Short answers of one or two words were filled in the blank with a pencil. For absentees, repeat visits on the same day were made. No repeat visits were made on the second or third day. Substitutes for CHAs or TBAs were not interviewed. Questions were repeated if the interviewee requested it.

Table IV shows the number of peasant associations with the number of CHAs and TBAs by woredas. See also the studied area on map of Sidamo Awraja on Page 24.

Table IV. Number of Peasant Associations with CHAs and TBAs by Woreda

Ser. No.	Name of Peasant Association	No. of CHAs	No. of TBAs	Popul-ation	Woreda
01	Aredagale	1	1	7,994	Dale
02	Bunabuka	1	1	9,084	Aleta Wondo
03	Chafasine	1	1	4,078	Awasa
04	Chukolemela	2	1	9,200	Aleta Wondo
05	Fura	1	2	10,278	Shebed-ino
06	Goida	2	3	5,523	Dale
07	Gure	1	2	9,320	Aleta Wondo
08	Halonagelma	3	3	9,860	Aleta Wondo
09	Hondowanabar-boro	1	1	11,120	Aleta Wondo
10	Kege	3	2	6,716	Dale
11	Korkenagunde	2	1	10,016	Aleta Wondo
12	Leilahoncho	2	2	10,028	Aleta Wondo
13	Shafena	1	2	4,820	Dale
14	Shilicho	1	1	12,080	Aleta Wondo
15	Shoye	2	4	8,700	Dale
16	Sitamo	2	2	10,808	Aleta Wondo
17	Titira	2	3	10,316	Aleta Wondo
18	Waicho	1	1	9,648	Dale
19	Wenenata	3	2	12,530	Dale
20	Wicha Alobe	2	1	10,024	Aleta Wondo
Total		34	36	182,143	

3. RESULTS

Data were obtained from 12 TBAs, 17 CHAs and 19 peasant association members. Table V shows the distribution of interviewed TBAs, CHAs and peasant association members.

Table V. Distribution of Trained CHAs, TBAs and Peasant Association Members by Woreda

Name of Woreda	Category		
	TBA	CHA	Peasant Associations
Aleta Wondo	5	10	11
Awasa	1	--	1
Dale	5	6	6
Shebedino	1	1	1
Total	12	17	19

3.1. Age Distribution

Four TBAs were below 40 years of age, five were between 40 and 50 years and three were above 50 years of age. Median age for TBAs was 41.5 years.

Ten CHAs were below 35 years of age, five were between 36 and 40 and two were above 40 years of age. The median age of CHAs was 28 years.

Of the interviewed peasant association members six were below 30 years of age, 10 were between 30 and 45 years of age and only three were above 45 years. The median age of the peasant association members interviewed was 32 years.

3.2. Occupation

Ten TBAs were housewives and two were widowed. All the CHAs were farmers. Of the peasant association members, 16 were farmers, two were clerks for the peasant association and one was a student. The position of the peasant association members was also obtained. Six were chairmen, four were members, two were secretaries and seven were others.

3.3. Religious Status

Ten TBAs were Christian, one was Muslim and one was other. Similarly 14 CHAs were Christian, one was Muslim and two were others. Eleven peasant association members were Christian. One was Muslim and seven were others. For marital status, all of the TBAs were married but two were widowed. Only two CHAs and two peasant association members were single.

3.4. Educational Level

It was found out that one TBA was illiterate, six could read and write, three had completed adult literacy and two had completed grade 1-6 level. Similarly one CHA completed grade level 1-6, eight completed grade level 7-8, and eight completed grade level 9-12. Likewise, six peasant association members completed grade level 1-6, one completed grade level 7-8 and 12 completed grade level 9-12.

3.5. Duration of Training

Only two TBAs took training for two weeks but the rest took for three weeks. Fifteen CHAs took their training for three months and the rest took for six months. It was found out that all TBAs and all CHAs were selected by their respective peasant associations. It was found out that all of the CHAs and TBAs were training at Health Centers.

3.6. Information on CHAs.

A question was asked of the CHA as to how many persons live in each of the peasant associations. Nine CHAs, two in Dale and seven in Aleta Wondo knew exactly the number of persons that lived in their community.

It was found that 15 CHAs had daily records for activities that were performed by them and they were using them correctly.

Information about source of water for consumption was obtained. Two communities used unprotected springs, eight communities used unprotected rivers, ten communities used unpiped wells and 12 used protected springs. (It should be noted that one community could have used more than one source.) In all of the communities it took less than an hour on foot to reach the water source.

A question was asked about the availability of latrines for the people. It was found out that all of them had latrines and the majority of them used them properly. All used open field for refuse disposal. In all communities, cattle are kept in the living quarters with people. In four communities it took less than an hour by foot to the

nearest health unit and in 13 communities it took one to three hours.

A question was asked about what type of health problems frequently existed in their respective localities. Information was obtained that in ten localities malaria frequently existed, in nine diarrhea, in six intestinal parasites and gonorrhea, in two typhus, tuberculosis in two, nutritional deficiencies in two and scabies in one.

A question was asked to find out if people go to the CHAs when they get sick. It was found that in 15 communities people went to the CHA if they got sick. Table VI shows the number of patients seen daily by the CHA at the Health Post.

Table VI. Number of Patients Seen by CHA s [illegible] Daily at the Health Post

No. of Patients	No. of CHAs	Percentage
0	2	11.8
1-10	6	35.3
11-20	2	11.8
21+	7	41.1
Total	17	100.0

Fifteen peasant associations had health posts with medicines and two did not have.

A question was forewarded to find out how often and in what conditions the CHA ran the health post. The information obtained indicated that almost all of them had a working program. The activities at the health post are run according to the schedule. Table VII indicates how many days the CHA spends at the health post each week.

Table VII. Distribution of CHA's Weekly Working Days in the Health Post

No. of Days	No. of CHAs	Percentage
0 days per week	1	11.8
2 days per week	9	52.9
3 days per week	2	11.8
4 days per week	4	23.5
Total	17	100.0

As for provision of health education, it was found that all of the CHAs gave health education. Health education was conducted at meeting places, health posts, schools, and in some cases by calling people together. Environmental sanitation, methods of communicable disease control, personal hygiene and importance of clean water were topics which were usually covered in health education. Information on sanitation campaign activities was also obtained. Two CHAs participated in clearing roads and maintaining small bridges. Six CHAs participated in cleaning surrounding areas and nine CHAs carried out general sanitation.

Information on EPI and on MCH services was also obtained. Only two CHAs participated in EPI program and carried out MCH services. A question was asked to determine the knowledge about epidemics. Thirteen CHAs knew what epidemic means and four did not. Ten had experienced the occurrence of epidemics since they had started working. Sixteen CHAs knew what to do with patients beyond their capacity and only one did not.

As for reporting the performed activities, 11 reported to Ministry of Health, four to peasant associations and two to both. Almost all of the CHAs had good working relationship with TBAs.

Frequency of supervision and inservice training for the CHAs by the nearest health unit was determined. The findings are given in Table VIII and IX respectively.

Table VIII. Number of Times CHAs are Supervised by the Nearest Health Unit

No. of Times	No. of CHAs	Percentage
Weekly	3	17.7
Monthly	7	41.2
Two times yearly	6	35.3
One time yearly	1	5.8
Total	17	100.0

Table IX. Number of CHAs Who Received In-Service Training from the Nearest Health Unit

No. of Times	No. of CHAs	Percentage
0	5	29.4
1	6	35.3
2	6	35.3
Total	17	100.0

Support of CHAs by their peasant association in kind or cash was determined and Table X shows the results.

Table X. Number of CHAs Remunerated by their Peasant Association

Status of Remuneration	No. of CHAs	Percentage
Paid monthly salary	14	82.4
Not paid at all	3	17.6
Total	17	100.0

Table XI shows the amount of payment in cash for CHAs.

Table XI. Number of CHAs Paid Monthly Salary in Birr by Percentage

Amount in Birr	No. of CHAs	Percentage
30 - 39	2	14.3
40 - 49	5	35.7
50 - 99	5	35.7
100 +	2	14.3
Total	14	100.0

The number of years served as a CHA was also determined and Table XII illustrates the results.

Table XII. Number of Years CHAs Served Since Their Training

No. of Years	No. of CHAs	Percentage
1 - 2	4	23.5
3 - 5	3	17.7
6 - 8	10	58.8
Total	17	100.0

3.7. Information on TBAs

A question was asked at what age the TBAs started attending births. Information was obtained that half of the TBAs began at the age of 40, four between the age of 20 and 25 and two at the age of 40. It was also found out that one TBA received attending experience from her grandmother, three from their mothers and eight from training. To determine the knowledge and experience of TBAs on selected signs of pregnancy and labor, questions were asked and the obtained results are given in the following tables.

Table XIII. Number of TBAs Who Correctly Identified Selected Signs of Pregnancy

Selected Signs of Pregnancy	Identified		Not Identified		Total
	No.	%	No.	%	
Amenorrhea	1	8.3	11	91.7	12
Nausea and vomiting	1	8.3	11	91.7	12
Nausea, vomiting, abdominal distention	1	8.3	11	91.7	12
Amenorrhea, abdominal distention	2	16.7	10	83.3	12
Breast change, abdominal distention	2	16.7	10	83.3	12
Abdominal distention	2	16.7	10	83.3	12

Table XIV. Number of TBAs Who Correctly Identified Dangerous Signs of Pregnancy

Selected Danger Signs of Pregnancy	Identified		Not Identified		Total
	No.	%	No.	%	
Antepartum hemorrhage	1	8.3	11	91.7	12
Feet and face swelling, absence of fetal movement	1	8.3	11	91.7	12
Absence of fetal movement	2	16.7	10	83.3	12
A.P.H., absence of fetal movement	3	25.0	9	75.0	12

Table XV. Number of TBAs Who Correctly Identified Selected Signs of True Labor

Selected Signs of True Labor	Identified		Not Identified		Total
	No.	%	No.	%	
Abdominal muscle contraction	1	8.3	11	91.7	12
Vaginal discharge, membrane rupture	1	8.3	11	91.7	12
Backache, discharge, contraction	1	8.3	11	91.7	12
Backache	1	8.3	11	91.7	12
Vaginal discharge	2	16.7	10	83.3	12
Membrane rupture	2	16.7	10	83.3	12
Backache, vaginal discharge	4	33.4	8	66.8	12

Table XVI. Number of TBAs Who Correctly Identified Selected Signs of Difficult Labor

Selected Signs of Difficult Labor	Identified		Not Identified		Total
	No.	%	No.	%	
Leg and/or hand presentation	1	8.3	11	91.7	12
Cord prolapse, labor over 24 hours, heavy bleeding before labor	1	8.3	11	91.7	12
Labor over 24 hours, heavy bleeding	1	8.3	11	91.7	12
Labor over 24 hours, cord prolapse	2	16.7	10	83.3	12
Labor over 24 hours	4	33.4	8	66.6	12

To determine the ability of the TBAs on identification of high risk mothers, a question was forewarded. Table XVII illustrates the obtained results.

Table XVII. Number of TBAs Who Correctly Identified High Risk Groups

High Risk Groups	Identified		Not Identified		Total
	No.	%	No.	%	
Elderly Primipara	---	---	---	---	---
Short Primipara	2	16.7	10	83.7	12
Very Young Primipara	3	25.0	9	75.0	12
Elderly and Short	1	8.3	11	91.7	12
Short and Young	2	16.7	10	83.7	12

Seventy-five percent of the TBAs knew what to do if a woman was not going to deliver normally. At the same time on the experience of hand washing before touching the delivering woman, it was found that only a few of them claimed to wash their hands. Meanwhile, all of the TBAs had not seen maternal mortality due to difficult labor.

To determine the experience of TBAs on the care of newborns and post-nates, questions were asked and the results are shown in Tables XVIII, IXX, and XX.

Table XVIII. Number of TBAs Who Correctly Identified Type of Care Provided to a Newborn

Type of Care	Identified		Not Identified		Total
	No.	%	No.	%	
Check respiration	1	8.3	11	91.7	12
Tie cord and cut	2	16.7	10	83.3	12
Cut cord	1	8.3	11	91.7	12
Check respiration, cut cord	1	8.3	11	91.7	12
Cover with clean cloth	1	8.3	11	91.7	12
Check respiration, tie cord, cut, cover with clean cloth	3	25.0	9	75.0	12

Table XIX. Number of TBAs Who Correctly Identified the Type of Maternal Care After Delivery

Type of Care	Identified		Not Identified		Total
	No.	%	No.	%	
Check if placenta is all out	2	16.7	10	83.3	12
Check heavy bleeding, placenta	2	16.7	10	83.3	12
Clean area, check bleeding	2	16.7	10	83.3	12
Check laceration, placenta	1	8.3	11	91.7	12
Check bleeding, laceration, clean	2	16.7	10	83.3	12

Table XX. Number of TBAs Who Correctly Identified the Type of Care Provided for Infants

Type of Care	Identified		Not Identified		Total
	No.	%	No.	%	
Avoid uvula cutting, butter feeding	3	25.0	9	75.0	12
Avoid butter feeding	2	16.7	10	83.3	12
Avoid butter, uvula cutting, vaccinate on time	1	8.3	11	91.7	12
Sunshine	1	8.3	11	91.7	12
Feed breast	1	8.3	11	91.7	12

None of the TBAS had seen death of a newborn due to labor. It was found that nine of them had delivery kits and two had finished their medicine. It was also found that nine of them had supervision from the nearest health units. Information was obtained on maternal mortality in the community and it was found that it has decreased.

Question was asked as to how many deliveries each of the TBAs had attended since their training. It was noticed that three had never been called for. Nine had attended. The least number of deliveries attended by one TBA was two, the highest 118. Table XXI shows the number of deliveries attended by each of them since their training.

Table XXI. Number of Deliveries Attended by TBAs by Peasant Association

Peasant Association	Type of Deliveries			
	Normal	Difficult	Referred	Total
Chuko Lemela	80	38	2	120
Sitamo	84	10	6	100
Fura	90	1	3	94
Wacho	70	--	6	76
Shoye	40	--	5	45
Goida	20	--	2	22
Chafasine	9	--	--	9
Leila Honcho	4	--	3	8
Gure	2	--	--	2

A question was asked to identify whether the TBAs are paid by the peasant associations or not. It was found that none of them were paid by the peasant associations but they had charged Birr 1-4 per delivery. It was also found out that all of them liked their profession.

3.8. Information on Peasant Associations

Questions on the availability and use of CHAs and TBAs were presented to the peasant association members. It was found that almost all of them had CHAs and TBAs. Information was also obtained that all of the CHAs and TBAs were working.

To determine the occurrence of disease problems encountered by TBAs and CHAs in their respective communities since they completed their training, questions were asked and it was found that in

all of them the occurrence of diseases was reduced. Similarly, maternal mortality and newborn deaths were reduced. It was also found that in all of them the activities of CHAs and TBAs were useful.

In all, enset was the staple diet. In some, maize was added to enset. In all, coffee was produced as a cash crop. In one, "chat" was added to coffee as a cash crop.

To determine whether the CHAs and TBAs were remunerated or not, a question was forewarded and it was noticed that 15 peasant associations remunerated the CHA on a monthly salary base. The lowest payment was Birr 36 and the highest was Birr 175 with a median income of 60 Birr per month. On the other hand the TBAs were not remunerated at all.

In regard to CHAs responsibility, it was found that 14 CHAs were responsible to their peasant associations, three to the Ministry of Health and two to both. As for the reporting of the performance of the CHAs, seven were reporting to the peasant association, six to the Ministry of Health, three to both and three were indetermined.

Information on the control mechanism of CHAs was obtained. Nine peasant associations controlled the CHAs by checking the working hour list, seven controlled by checking the work report, three were indetermined. A question was forewarded to identify the presence of other untrained TBAs. It was found that in 14 peasant associations untrained TBAs were present, their number ranging from two to 16.

4. DISCUSSION

The idea of training and utilization of CHAs and TBAs in Ethiopia emerged since 1972 Ethiopian Calendar. This was the time when the social objectives, "Health For All by the Year 2000" began. It was aimed to be achieved through Primary Health Care (PHC) approach.

The whole issue in Primary Health Care is to maintain an equitable distribution of human and material resources. Most often, the urban areas with smaller population draw much of the resources of a nation. This keeps on making the already existing gap between countries of the world wider and wider.

Therefore, overwhelming health problems fall upon the rural population which is already underprivileged. Hence it is clear that these problems cannot be solved by medical doctors alone in any country of the world. Rahi a (9) states, "A good hospital or highly qualified doctor alone cannot do much to bring about this movement or bridge the implementation gap."

When disease prevention, health promotion, rehabilitation and curative aspects of health programs are looked upon, one can see that health is the society's problem as a whole. Therefore, the society must look for the solution if the pains and sufferings are to be relieved.

It is in this context that Ethiopia has established a Community Health Service (CHS) structure on its Health Service Organization. See Figure 1, Page 12 and Figure 4, Page 21.

Community health service is cheap and effective. In addition, it brings a wider coverage. But it requires the necessary support. Guidance and adequate supervision are firm foundations for CHS.

WHO (29) has observed that conventional health services are costly and slow in meeting the basic health needs of the rural majority. On the other hand CHS is believed to meet the utmost demand of the population. Rahnema (9) emphasizes that the community health worker is the "key factor" in meeting the health needs of a community as well as in creating awareness of health and health development.

In Ethiopia to achieve this objective, 6717 CHAs and 6107 TBAs have been trained and returned back to their communities. It was not only to create awareness, but also to balance the shortage of health manpower. In addition, it was to create availability and accessibility of health services. By and large it was meant to link the institutionalized health services with that of the community.

However, although so many CHAs and TBAs were trained, it was found that most of them were not working. In Sidamo, out of 436 trained CHAs, only 26.8% and out of 632 TBAs, only 38.2% are found working. Similarly in Sidama Awraja, out of 118 CHAs only 28.8% and out of 236 TBAs, 49.6% are found working. (Personal Communication, Asrat WoldeMeskel).

These rates are similar to that of the estimated rate of 30% for the nation. (18 P.1). It seems that in Sidamo the utilization of CHAs and TBAs does not even make 30%. In Ethiopia, about two years ago, a study was made on the use of CHAs. It has revealed an attrition rate of 38%. (30). In a survey of need assessment which was carried out in Bale Administrative Region, out of 210 peasant associations which have trained CHAs it was revealed that only 32% of them had organized CHS. (31). Lack of remuneration, finding other jobs and heavy work load are some of the main reasons quite often mentioned.

In China, (32) out of 312 barefoot doctors, 33.4% related their complaints to training, 30.6% to administrative management and 25.7% to salary and allowances. In the study area (Sidama), 53% of CHAs related their complaints to administrative problems, 35.3% related to shortage of medicine.

One of the reasons given among auxiliary social workers in India was work overload. (33). In our country the initial plan was to cover 500 persons by one CHS. (13 P.20). In the 10 Years Health Sector Plan, the plan is to cover 1000 people by one CHS. (24). In the studied area the number of persons covered by one CHS varied from 4000 to over 11,000 as indicated in Table IV. In addition 53% of CHAs have already shown a daily patient load of 11 and above as shown in Table VI. Thus it requires a serious attention at the time of selection to train the CHAs.

The objective of the Ministry of Health in the Ten Years Plan is to cover 80% of the population by MCH and EPI programs. However, as we can see, a small percentage of CHAs have participated in the program. Since MCH and EPI are important components of PHC, attention is required to achieve the set objectives.

4.1. Selection and Training

It was found out that all of the CHAs and TBAs were selected by their respective associations. Selection is one of the important steps which requires particular attention.

In Ecuador (34), selection of TBAs takes place in steps. First, candidates are selected by a local committee and then invited by written

letter. After that the identified candidates are interviewed and looked upon by the training health institution. At the time of selection, the age, the interest and the physical quality of an individual are thoroughly screened. Interest of the nominee to work in the community and the community's interest in the nominee is very important. Running to fill up a quota sometimes can cause serious mistakes. This was clearly seen in Abela Galuko, where the questionnaires were pretested. Then in Weneneta and Kege, the TBAs stated, "We are just simply nominated and trained but so far no one called for us to attend births." The Ministry of Health has selection criteria but sometimes they are overlooked. (35) • On the importance of selection, Vaughan and Walt (36) from their experience, state that who is selected for training and how they are selected are vital to the success of village health workers.

Although young people have energy and willingness to learn and work, Vaughan and Walt (36 P.107) further give us an insight that failures in some countries occurred by selecting men who are not acceptable to women or young girls who do not have the necessary power in the community.

In the study area over 83% of TBAs were within the age group 35-70 years. This is similar to that of TBAs' age group in Ecuador, 30-65 years (34 P.17), a little less than the lower boundary of the age group of TBAs in the Philippines, 40-69 years. (34 P. 45)• Age distribution of barefoot doctors in China (32 P. 59) is 20-39 years which is almost the same as that of the age group of CHAs, 20-41 years in Sidama.

At the time of selection noting the characteristics of CHAs and TBAs alone is not enough. The status of the peasant associations should also be known. This is because, according to the Plan, community health service is meant to be administered by the local communities. Therefore, the readiness and willingness of the peasant association are the determining factors for the establishment of CHS.

4.2. Supervision and Inservice Training

A lot has been said about supervision. For maintenance of community health service as well as other services, supervision is indispensable. Without adequate supervision, no matter how strongly a community health service is established, it is liable to failure. Unpublished study report from Gamo Goffa Regional Health Department states that supervision, as a tool to sustain optimal activity on the part of CHAs and TBAs, is a major supportive element for community health workers (37).

Fendall, N.R.E. (38) states the objective of training in the use of auxiliaries is to achieve a much greater outreach service at a lower cost. On the other hand it is balancing a calculated risk in the quality of service provided to the individual against increase in the quality and quantity of service provided to the community as a whole.

WHO (13) in Guidelines for Training Community Health Workers in Nutrition states that training is not completed in a set period of time or at the end of the formal training course.

In Table VIII although it is very difficult to conclude, it seems that supervision is better maintained than in-service training. The maximum years of service as a CHA being six years and

within this period 65% of CHAs did not have in-service training at all or experienced it only once.

There is a problem of recording and reporting. At Shoye, there was not a record of any kind three months prior to the interview. On the other hand at Wacho there was up to date information. The CHA had recorded even when the TBA stopped reporting to him. In some places they do not have any record as to how many people they were serving. In Aleta Wondo, seven peasant associations (CHAs) have a record for the correct number of population they were serving. In Dale, two CHAs out of the six visited had the correct number of population they were serving.

The study has revealed massive problems in the area of TBA activities. In Table XIII a very small number of TBAs correctly identified the most common signs of pregnancy. Likewise in Table XIV selected dangerous signs were identified correctly by a small percentage of TBAs. In Table XV although better rates are seen, they are not very satisfactory. The same thing is true in Tables XVI and XVII. Or Page 43 only two TBAs, one in the pretested area and one in the studied area stated that they washed their hands before they touched the woman during labor.

Only one TBA stated how she manages a retained placenta. In Table XX only one TBA stated the importance of sunshine. None of them mentioned anything about child spacing.

A study carried out in Gondar Administrative Region on the characteristics and practices of traditional birth attendants has shown that the majority of them were not able to identify abnormal pregnancy and labor which is similar to these findings. (39).

Hence these findings do clearly suggest and show us the direction that needs much effort. Therefore utmost effort is required to maintain our community health service areas for the very fact that the majority of our population still depends on the traditional practices.

4.3. Availability of Health Post

Eighty-two percent of CHAs have health posts. Except Sitamo and Wichanadobe all of the rest were single rooms. They are attached to other rooms which are used as stores, shops, offices, halls, and so on. In some health posts, ploughs, hoes, spraying pipes and the like are kept.

Medicines have their own norms and cannot be kept with other stuffs. This type of health post is not convenient for the CHAs and TBAs to perform their activities. The present health posts that are being used look more like drug shops rather than health posts. On the other hand where the TBA lives is often quite far (not less than an hours walk) from the health post.

Therefore, it is suggested that health posts should be constructed with locally available materials in a separate block building with three rooms and a veranda. This is so that:

- one room can be used to store medications
- one room can be used by the CHA
- one room can be used by the TBA and the veranda an be used as a waiting place and as well for health education. In addition, this invites an opportunity for CHAs and TBAs to sit together and discuss about the health problems of their locality.

4.4. Remuneration

In thinking of CHS in line with primary health care, remuneration becomes an important issue for the success or failure of CHS. The reason is that very often community health workers are expected to work on a voluntary basis which may not last long.

Zoysa and Cole-King (42) gave us three options to solve the problem of remuneration: volunteer service, community support and support from external sources.

In the studied area a mixed type of support is being experienced. Those methods are:

- full salary payment from the community
- voluntary services
- service fee charges

Out of 436 CHAs in Sidamo Administrative Region 53 (12.2%) are supported by monthly salary. Out of 20 peasant associations studied, in 14, a monthly salary is given; the highest, Birr 175 and the lowest, Birr 36 is paid with the median income of Birr 60. Three were working on voluntary basis.

The TBAs are not paid anything at all as a salary but they charge a service fee of Birr 2-4 per delivery

Finally, due to the exclusion of 22 peasant associations, there could be a selection bias. But since it is a descriptive study, I believe that the bias would not be a problem.

5. CONCLUSIONS AND RECOMMENDATIONS

The community is the base of everything. It must be considered in terms of the social unit of all interactions. In Community Health Service the well being of the society is dependent on the health of its people. So then to involve the instruments responsible for maintaining health in thecommunity becomes a central issue. In addition it requires a deep commitment where community health service becomes an essential issue in the present era that we are in.

In Sidamo Administrative Region the study has revealed to us that less than 30% of CHAs and less than 50% of the TBAs that are trained so far in the region are found to be working. The main cause for such a very low rate compared to the total trained is the lack of support. It could be attributed to the imbalance between the trained number of front-line community health workers and the few peasant associations who are ready to accept CHAs and TBAs. The undeniable fact is that nobody wants to work freely for long in a community.

Those found working in the studied area are CHAs who are paid a monthly salary by the service cooperatives or producers cooperatives. For example, the Wacho CHA is paid Birr 175 monthly salary. He is controlled by the peasant association, reports regularly, identifies health problems just like a government employee. He has up to date information more than all of the rest.

- It is recommended that CHAs and TBAs be selected and trained from among peasant associations of Service Cooperatives and Producers Cooperatives.

- The government should support CHS established in peasant associations where Service Cooperatives and Producers Cooperatives are. Of course this has to be done for a limited period of time.
- Adults with family who are less likely to move away should be selected and trained.
- A career structure for CHAs and TBAs should be developed within the Ministry of Health.

Since only 30% or less of the trained CHAs and TBAs are found working, I recommend that there is a strong need for formulation of a national policy on selection, training and use of CHAs and TBAs.

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Appendix I

Addis Ababa University
Medical Faculty
Community Health Department

Date _____

Questionnaire Form No. 1
Prepared for the CHA

Directions:

Please,

a) Use pencil
b) Fill in the blank with appropriate answer in the space provided.
c) Make a check (✓) mark in the appropriate box.

1. Administrative Region _____
   Awraja _____
   Wareda _____
   Kebele/Village/Peasant Association _____

2. Identification
   Name _____ Age _____ Sex _____
   Ethnicity _____ Occupation _____
   Religion _____

3. Marital Status
   Married ☐ Single ☐ Divorced ☐
   Widowed ☐

4. Educational level
   Literate ☐ Illiterate ☐
   4.1 If literate, Read and Write ☐
   Adult Literacy ☐ Grade 1-6 ☐
   Grade 7-8 ☐ Grade 9-12 ☐

5. Who selected you to the training? Your own ☐
   Your association ☐ Health people ☐

Questionnaire Form No. 1

5.1 Duration of training. Two months ☐

Three months ☐ Six months ☐

5.2 Place of training

Regional Health Department ☐

Hospital ☐ Health Center ☐

6. No. of persons living in the village

Males ☐ Females ☐

7. Do you have a registration for your daily activity? Yes ☐ No ☐

7.1 If yes, do you use it? Yes ☐ No ☐

7.2 If no, why? No money ☐ Not needed ☐

8. Where do people get drinking water?

Protected river ☐ Not protected ☐

Protected Spring ☐ Not protected ☐

Piped well ☐ Not Piped ☐

Cleaned ponds ☐ Not cleaned ☐

9. How long does it take to the water source on foot?

Less than 1 hour ☐ 1-2 hours ☐

10. Are there latrines for the people?

Yes ☐ No ☐

10.1 If yes, are they being used? Yes ☐

No ☐

10.2 If no, why? Because of smell ☐

No use ☐ Not accepted ☐

10.3 Where do the people dispose their refuse?

Burn ☐ Bury ☐ Open field ☐

10.4 Where do the people keep their cattle?

In living quarters ☐ Cowshed ☐

10.5 Have you done a sanitation campaign?

Yes ☐ No ☐

10.6 If yes, what type? _____

Questionnaire Form No. 1

11. How long does it take to the nearest health unit? Less than one hour ☐
    1-3 hours ☐ 4-6 hours ☐
12. What are the most frequently seen health problems in the village?
    a) _____ b) _____
    c) _____ d) _____
13. Do people come to you when sick?
    Yes ☐ No ☐
    13.1 If yes, how many come daily?
    1-10 ☐ 11-20 ☐ 21+ ☐
14. Is there a Health Post? Yes ☐ No ☐
    14.1 If yes, is there medicine?
    Yes ☐ No ☐
    14.2 If no, why? _____
15. Do you give health education?
    Yes ☐ No ☐
    15.1 If yes, place where you give health education.
    In health post ☐
    In schools ☐
    In meetings ☐
    Gathering people for health education ☐
    15.2 Common topics covered in health education
    a) _____
    b) _____
    c) _____
    d) _____
    e) _____

Questionnaire Form No. 1

16. Is there a vaccination program?
Yes ☐ No ☐
16.1 If yes, how often do you conduct?
Every week ☐ Every month ☐
16.2 What is your participation in the vaccination program?
Agitation ☐
Keeping people in line ☐
Giving health education ☐

17. Do you run an MCH program? Yes ☐ No ☐
17.1 How often is it given?
Every week ☐ Every 2 weeks ☐
Once a month ☐

18. Do you know what epidemic means?
Yes ☐ No ☐
18.1 How do you know if an epidemic is taking lace?
People tell ☐
More people come than usual ☐

19. Was there any epidemic since you are trained?
Yes ☐ No ☐
19.1 If yes, what type? a) _____
b) _____
c) _____

20. What will you do if you cannot treat the patient?

_____

_____

21. To whom do you report about your work?
Peasant Association ☐ Clinic ☐
Health Center ☐ Hospital ☐

22. How is the working relationship with the TBA?

_____

_____

Questionnaire Form No. 1

23. Have you ever been supervised?

Yes ☐ No ☐

23.1 If yes, how often? Once a week ☐

Once a month ☐ Once a year ☐

Every 6 months ☐

24. Have you ever been given in-service training?

Yes ☐ No ☐

24.1 If yes, how many times so far?

Two times a year ☐ Once a year ☐

25. Are you paid by your peasant association?

Yes ☐ No ☐

25.1 If yes, what type?

In cash ☐ In kind ☐

25.2 If in cash, what amount _____

25.3 If in kind, what kind? Plough your land ☐ Share crops ☐

26. For how long have you served as a CHA? _____

27. Do you like your profession? Yes ☐ No ☐

Appendix II

Addis Ababa University

Medical Faculty

Community Health Department

Date _____

Questionnaire Form No. 2

Prepared for Traditional Birth Attendants

Directions:

Please,

a) Use pencil

b) Fill in the blank with appropriate answer in the space provided

c) Make a check (✓) mark in the appropriate box.

1. Administrative Region _____

Awraja _____

Woreda _____

Kebele/Village/Peasant Association _____

2. Identification

Name _____ Age ___ Sex ___

Ethnicity _____ Occupation _____

Religion _____

3. Marital Status

Married ☐ Single ☐ Divorced ☐

Widowed ☐

4. Educational level

Literate ☐ Illiterate ☐

4.1 If literate, Read and Write ☐

Adult literacy ☐ Grade 1-6 ☐

Grade 7-8 ☐ Grade 9-12 ☐

Questionnaire Form No. 2

5. Who selected you to the training? Your own ☐
Your association ☐ Health people ☐

5.1 Duration of training
15 days ☐ 20 days ☐ 30 days ☐

5.2 Where did you receive the training?
Regional Health Department ☐
Hospital ☐ Health Center ☐

6. At what age did you start attending births?
Less than 20 ☐ at 20-24 ☐ at 25-29 ☐
at 30-34 ☐ at 35-39 ☐ at 40+ ☐

7. Was there a birth attendant in your family?
Yes ☐ No ☐

7.1 If yes, your relation to him/her _____

8. How do you know if a woman is pregnant?
Amenorrhea ☐ Nausea and vomiting ☐
Breast change ☐ Abdominal distention ☐

9. Do you carry out antenatal clinic?
Yes ☐ No ☐

9.1 If yes, where? _____

9.2 If yes, what will you do?
Advise on nutrition ☐
Advise to rest ☐
Advise for physical check-up ☐

9.3 How many antenatal care did you do so far?

_____

10. Dangerous signs during pregnancy
Bleeding ☐ Dizziness ☐
Face and feet swelling ☐
Absent fetal movement ☐

11. Signs of true labor
Backache ☐ Discharge ☐ Contractions ☐
Membranes rupture ☐

Questionnaire Form No. 2

12. Signs of difficult labor
    Labor over 24 hours ☐
    Hand and/or leg presentation ☐
    Cord prolapse ☐
    Heavy bleeding before labor ☐
13. Identification of high risk group
    Elderly primipara ☐
    Short and thin primipara ☐
    Very young primipara ☐
14. What will you do if you know the woman is having difficult labor? _____
15. How many deliveries did you attend since you are trained? _____
    15.1 How many normal? _____
    15.2 How many abnormal? _____
    15.3 How many did you refer? _____
16. At the time of birth attending, what will you do before touching the woman? _____
17. Was there death of mothers due to labor since you started attending birth? Yes ☐ NO ☐
18. What care do you take for the newborn after delivery?
    Check breathing ☐ Tie cord at two places ☐
    Cut the cord with boiled blade ☐
    Cover the baby with clean cloth ☐
19. What care do you take for the mother?
    Check placenta out ☐
    Check laceration ☐
    Check for heavy bleeding ☐
    Clean, cover perineum ☐
20. Do you make home visits for post-nate?
    Yes ☐ No ☐

Questionnaire Form No. 2

20.1 If you visit, the activities you perform are:

Advice on baby feeding ☐

Advice on uvula cutting ☐

Advice to vaccinate on time ☐

Advice to put in sunshine ☐

Advice on child spacing ☐

21. Do you have a delivery kit? Yes ☐ No ☐

21.1 If yes, are there medications?

Yes ☐ No ☐

21.2 What will you do if medicines in your kit are finished? _____

22. Have you ever been supervised by the nearest health personnel? Yes ☐ No ☐

22.1 If yes, by whom? Health Station ☐

Health Center ☐

Hospital ☐

Regional Health Department ☐

23. How is the condition of maternal deaths since you are trained? Decreased ☐ Increased ☐

No change ☐

24. Are you paid by your association?

Yes ☐ No ☐

24.1 If yes, in cash ☐ in kind ☐

24.2 If in cash amount _____ monthly

24.3 If in kind, type _____

24.4 If no payment, do you ask for fee?

Yes ☐ No ☐

24.5 If yes, how much? Please state _____

25. Do you like your profession?

Yes ☐ No ☐

26. Do women go to other birth attendants?

Yes ☐ No ☐

Appendix III

Addis Ababa University

Medical Faculty

Community Health Department

Date _____

Questionnaire Form No. 3

Prepared for the Members of Study Village

Directions:

Please,

a) Use pencil

b) Fill in the blank with the appropriate answer in the space provided

c) Make a check (✓) mark in the appropriate box.

1. Administrative Region _____

Awraja _____

Woreda _____

Kebele/Village/Peasant Association _____

2. Identification:

Name _____ Age ___ Sex ___

Ethnicity _____ Occupation _____

Religion _____

3. Marital status

Married ☐ Single ☐ Divorced ☐

Widowed ☐

4. Educational Level

Literate ☐ Illiterate ☐

4.1 If literate, read and write ☐

Adult literacy ☐ Grade 1-6 ☐

Grade 7-8 ☐ Grade 9-12 ☐

Questionnaire Form No. 3

5. Status in the Peasant Association
   Chairman ☐ Vice chairman ☐
   Secretary ☐ Others ☐
6. Is there CHA? Yes ☐ No ☐
   6.1 If no, why? Not ready ☐
   Not necessary ☐
7. Is there trained TBA in the village?
   Yes ☐ No ☐
   7.1 If no, why? Not ready ☐
   Not necessary ☐
8. Are the CHAs working? Yes ☐ No ☐
   8.1 If yes, when did they start working?
   Give year _____
   8.2 Is there a health post? Yes ☐ No ☐
   8.3 If yes, do the people use it?
   Yes ☐ No ☐
   8.4 If no, why? _____
9. Are the TBAs working? Yes ☐ No ☐
   9.1 If yes, since when? Give the year _____
   9.2 If no, why? _____
10. What is the condition of disease outbreak since the CHA started work? Decreased ☐
   Increased ☐ No change ☐
11. How is the condition of maternal mortality since the TBA started work? Decreased ☐
   Increased ☐ No change ☐
   11.1 What about the death of newborns?
   Decreased ☐ Increased ☐
   No change ☐
   11.2 What about child mortality rate?
   Decreased ☐ Increased ☐
   No change ☐

Questionnaire Form No. 3

12. What type of food stuff do you commonly produce?
    Teff ☐ Maize ☐ Enset ☐ Others ☐
13. What is your cash crop? Maize ☐ Coffee ☐
14. If the CHAs and TBAs are working, do you give support? Yes ☐ No ☐
    14.1 If yes, what kind do you give?
        In cash ☐ In kind ☐
    14.2 If in cash, please give the amount _____
    14.3 If in kind, what type support do you give?
Plough his land ☐ Share crop ☐
15. Is the work of CHAs and TBAs useful?
    Yes ☐ No ☐
16. To whom are the CHAs and TBAs responsible?
    Peasants Association ☐
    Ministry of Health ☐
    Not known ☐
17. Do they report? Yes ☐ No ☐
    17.1 To whom do they report their performance?
    _____
18. How do you control them? _____
19. Are there other untrained TBAs?
    Yes ☐ No ☐
    19.1 If yes, how many in number? _____

Appendix IV

Content of CHA Training Course by Hours As Given by the Ministry of Health (40)

Title of the Subject	Hours			
	Theory	Practice	Total	%
General Introduction	8	--	8	1.4
Primary Health Care	8	6	14	2.4
Health Education	18	10	28	4.8
Personal Hygiene and Environmental Sanitation	24	24	48	8.1
Prevention and Control of C.D.	24	24	48	8.1
Nutrition and Diet	12	12	24	4.0
Home Economics	18	26	44	7.5
MCH Services	36	36	72	12.2
Anatomy and Physiology	16	10	26	4.4
Examination and Treatment	32	44	76	12.9
Precautions in Using and Handling Drugs & Med. Equipment	16	12	28	4.8
Traditional medicine and Treatment	8	8	16	2.7
Information Collection	10	10	20	3.4
Working Guides	6	6	12	2.0
Field Experience	--	102	102	17.3
Oral, Written & Practical Exams	12	12	24	4.0
Total	248	342	590	100.0

Appendix V

* Contents of Training of TBAs (41)

Total time allotted - 160 hours or
8 hours a day for 20
working days

Topics to be covered:

1. General introduction to health
2. Pregnancy
   - Female reproductive organs
   - Creation of conception
   - Observable body changes during pregnancy
   - Care during pregnancy
   - Possible dangerous signs of pregnancy
3. Delivery attendance
   - Preparation
   - Signs and stages of labor
   - Presentation
4. Care of a newborn
5. Care of the mother after delivery
6. Nutrition and general care of the newborn
7. Precautions and postnatal care
8. Health information collection and reporting

* Upon completion and certification, the TBA is provided with equipped delivery kit.

Appendix VI
Working Definitions

Community Health Service -

Part of health care which is concerned with the health of the whole population in a community. It is in line with Primary Health Care by the use of CHAs and TBAs in a Health Post.

Community Health Agent -

This is a male or female individual who is selected by the local community and trained by the Ministry of Health as a CHA for at least 3-6 months in a health center or rural hospital.

Traditional Birth Attendant -

This is a female or male individual who has traditional experience in attending birth, but selected by the community and trained as a trained traditional birth attendant for at least 2-3 weeks in health institution as mentioned above.

Health Post -

It is a block building (house) constructed with locally available material, having at least three rooms with veranda.

Urban -

Areas with minimum population size 2000 or more if more than 50% of the population is engaged in non-agricultural product.

Literate -

Persons 10 years and above who are able to read and write.

Appendix VII

List of Abbreviations

APA - Antepartum hemorrhage
CHA - Community Health Agent
CHD - Community Health Department
CHS - Community Health Service
C.S.O. - Central Statistical Office
REWA - Revolutionary Ethiopian Women's Association
REYA - Revolutionary Ethiopian Youth Association
TBA - Traditional Birth Attendant

DECLARATION

I, the undersigned declare that this thesis is my work and that all sources of material used for this thesis have been duly acknowledged.

Name Gebre Madebo

Signature 

Place Department of Community Health

Medical Faculty

Addis Ababa University

Date of Submission September 1986