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# HEALTH PROFILE:

## Liben Zone
## Somali National Regional State
## Ethiopia

## October 2000

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# I. Introduction

Since the inception of the UN World Health Organization (WHO) in 1948, various approaches have been employed to address major public health problems around the world. The approaches have varied from malaria control in the 1950s, development of basic health services in the 1960s, and, in the 1970s and 1980s, the broader approach of primary health care (PHC) for all, with an emphasis on intersectoral collaboration and community involvement.

It is now widely recognized that access to primary health care is crucial in efforts to improve quality of life. Many countries are working to increase coverage of PHC service while maintaining the quality of care provided and maximizing use of existing country-level and community/local resources.[1] It is also widely recognized that community participation is and should be the cornerstone for successful implementation of PHC. Optimally, focus should be placed on measures taken at the community level, use of local resources, and the active involvement of beneficiary populations. However, a decline in resources available for social services, especially health, and a sharp increase in the cost of medical services throughout the world, threaten the sustainability of PHC programs. In addition, environmental factors, demographic changes, HIV/AIDS, urbanization, mass migration, and the resurgence of long-term diseases such as tuberculosis and malaria are affecting health and disease patterns worldwide.

The current Ethiopian government, in particular the Ministry of Health (MOH), has taken steps at various levels to promote community participation and self-reliance in preventive health activities. Development of health management at the zonal and district levels is the primary strategy used by the Ethiopian government to implement "health for all." A review of PHC conducted in 1985 by the MOH in collaboration with UNICEF indicated that 73% of community health committees were involved in health activities supported by various organizations. Fifty percent of the local community was involved in identifying health problems and 28% of the community was involved in priority setting of health activities and in evaluation of health programs. Coverage of immunization, safe drinking water, and MCH care are steadily increasing, according to the survey.

Recurring conflict and famine, however, have reduced the impact of these positive findings. Coverage of some health service programs (e.g. EPI) has declined three-to-four fold consequently. Lack of resources and health manpower also has reduced the impact. The centralized health planning system promoted by the Mengistu regime (1974-1991) did little to emphasize or recognize the contribution of the local community in provision of health services. Community health workers were for the most part unsupported and nonfunctional during this period. The tenuous peace and stability that has prevailed in Ethiopia since 1991 and the subsequent process of decentralization are expected to allow increased involvement of lower-level health management offices.

[1] In 1978, when the Alma Ata declaration on PHC was issued, it was estimated that four-fifth of the world's population lacked access to basic health care services.

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Overall, coverage of health services is estimated to be less than 50% in Ethiopia, with even lower coverage expected in poor and marginalized communities such as those in Somali Region. This poor and uneven coverage can be improved with increased grassroots planning and assessments, as well as an expansion of health infrastructures to the most needy population. In this regard, support of zonal health management offices especially in the area of logistics is of paramount importance to address the health needs of pastoralist communities. In order to prioritize needs and draw up an action plan effectively, more information is needed on the health and related aspects of the zone. This paper represents one attempt to fill this gap by providing a profile of the health situation in Liben Zone, located in the Somali National Regional State (SNRS).

The author would like to extend his heartfelt gratitude to Save the Children/US staff, including Poul Brandrup, Margarita Clark, Hirut Shiferaw, and Zema Semunegus. Staff from SC/US in Borena and PCAE in Filtu and the Zonal Health Department also provided helpful assistance. The author also would like to thank his advisor Dr. Alemayehu Worku for his invaluable comments and support throughout the study.

## II. Objectives of Health Profile

**General objectives**

To identify factors that affect the health of individuals, families and communities of Liben Zone in a systematic and comprehensive manner and draw up an action plan.

**Specific Objectives**

1. To assess and describe the health and health related issues in Liben Zone.
2. To assess the activities of the health services and activities of health institutions in the Zone.
3. To identify major health problems and possible means to solve them.
4. To identify potential areas for applied research.

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## III. Methodology of Health Profile

This profile was compiled using the following methodologies:

1. Review of reports in the ZHD and other institutions working in the Zone
2. Interview and discussion with relevant officials in governmental and NGO offices
3. Information collected from health workers in the ZHD, health institutions and NGOs
4. Observations during visits to some health institutions
5. Review of published and unpublished materials

Major sources of information included the following:

1. Liben Zone health department
2. Filtu and Ayile health stations

3. Liben Zone Agriculture office
4. Pastoralist Concern Association for Ethiopia
5. Liben Zone Education office
6. Liben Zone administrative council

This method of information collection has certain shortcomings. Data obtained from the routine health information are mostly incomplete and of poor quality. As such, the data are not representative of the population and should not be used to generalize about the situation as a whole.

# IV. Background of Liben Zone

## Geography and Climate

Liben Zone is one of the nine zonal administrations of the SNRS. It is located in the southwestern extreme of the region bordered by Borena Zone of Oromia regional state in the west and northwest, Afder Zone of SNRS in the east and northeast, and Kenya and the Republic of Somalia in the south.

Administratively, the zone is divided into 3 weredas (or districts), i.e. Filtu, Dolo Odo and Moyale. Filtu is also the capital of the Zone, Dolo Odo, and Moyale. Filtu has 117 Kebeles and farmer associations.

The terrain varies between arid and semiarid, with some areas of fertile or arable land. The altitude ranges from 200 to 1500 meters above sea level, which falls within the dry and hot ('kolla') climatic zone, according to the local agro-climatology classification. The mean annual temperature ranges between 25 and 40 degrees centigrade.

The southern part of Liben zone is nearer to the equator, enabling the Inter-Tropical Convergence Zone (ITCZ) to bring southerly and southeasterly bimodal rainfall. This rainfall, known locally as 'gu', is the long rainy season and occurs from March-May. The 'deyr' season, or the short rainy season, falls between September-November. Currently, the 'deyr' is expected with mean annual rainfall ranging between 300–800 mm. However, the dry period between the short (small) rains and long (big) rains is usually variable and poses an important risk to nomadic pastoralists who are entirely dependent on rain for consumption, livestock, and for growth pasture. The absence of rain for the last three consecutive years caused a serious drought which could have resulted in a devastating famine had it not been for the concerted effort of the government and the international community. Among the rivers in the zone, only Genale is perennial. The Weyb River is dry for 3-4 months of the year, and the Dawa dries out every few years.

## Population

The total population of Liben Zone according to a census conducted on September 11, 1997 is 512,190, with a mean household (HH) size of 6.6, 6.7 and 6.2 for the zone, rural and urban

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settings, respectively. Of the total, 279,861 (or 54.64%) are males and females number 232,329 or 45.36%. The male to female ratio of the zone is 120:100, of which 114:100 and 121:100 comprise the urban and rural population respectively. Over 55% of the population is under 15, 43.42% is between 15 and 64 and those 65 and above constitute 1.5%. The data shows a very low life expectancy at birth, 56.2, for males and 52.9 for females. 33.02% of males and 42.09% of females are married. 90.60% of the population reside in rural settings and lead nomadic-pastoralist life styles.

Almost the entire population of the zone is Muslim and adhere to the *shafite* school of Islamic law. The main inhabitants of the zone are ethnic Somali (99.04%), comprised of an indigenous pastoralists group known as Digodi. The Digodi typically wander throughout the semi-arid areas of Liben zone, Afder zone, Borena zone of Oromia Region and along the Kenya border areas with their herds in search of water and pasture. They are predominantly a pastoral community but also practice some cultivation in the wetter parts of Filtu and Dolo Odo weredas. A small number of traditional settled farmers of heterogeneous origins live in permanent villages along the banks of nearby main rivers (Genale and Dawa). Though originally from different social groups, they are collectively known as 'gromaro.'

Apart from the regional administrative structure, the Digodi have their own sociopolitical organization. It consists of two conceptual moieties, 4 sub-moieties, 12 clans, and numerous lineages primarily based on male lineages. The two moieties symbolically represent the elder and younger ancestors of the group. Clans are intermingled and widely distributed in the Zone and along the Ethio-Kenya border areas. Digodi achieve consensus on important community issues through open participatory assembly. The traditional leader is called 'Waber'.

Women are subordinate to men in this society. Domestic activities predominantly belong to the women, who are responsible for child care and socialization, processing and preparing food for the household, fetching water, hewing wood, and the construction and maintenance of Somali 'aqals' (Somali traditional house).[2] Men typically serve as household heads and represent the household to the outside world. They are strategists for livestock production and sales, herding, watering animals, and milking and are responsible for fetching water from distant sites.

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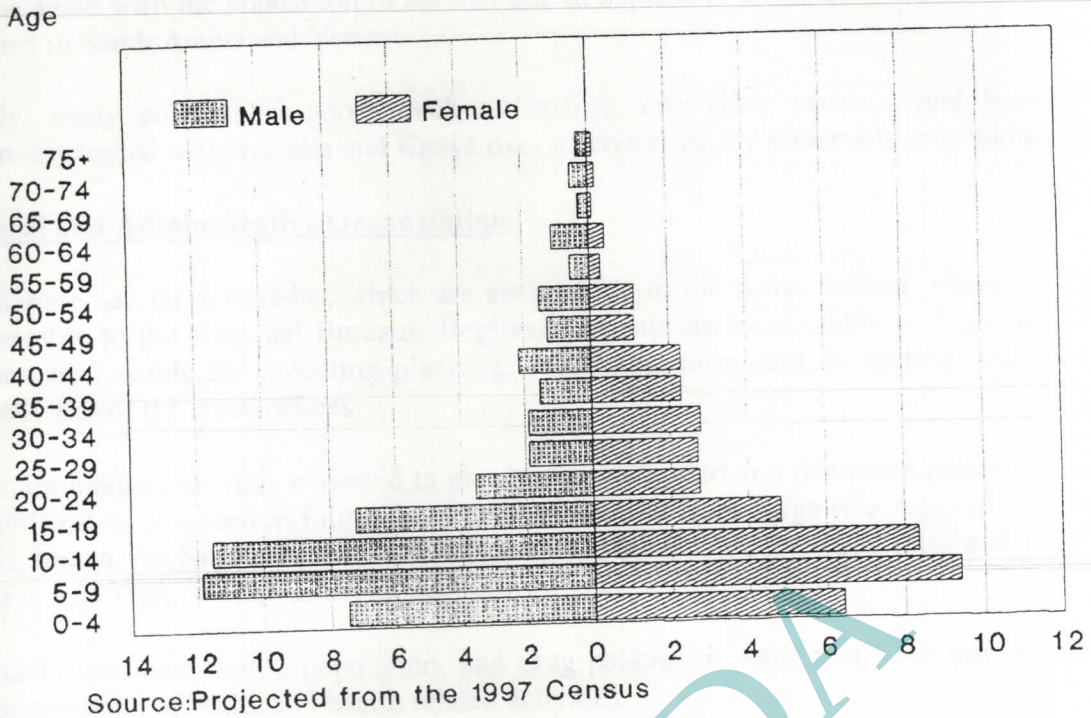
[2] It is worth noting that the 1977-78 Ogaden war forced a large number of people to abandon the pastoral way of life and provided women an opportunity to engage in economic activities outside of the household. As such, many women have become active traders and economically responsible for the household.

**Table 1: Distribution of Liben zone population by age and sex**

| Age group | Male | | Female | |
|---|---|---|---|---|
| | No. | % | No. | % |
| 0-4 | 38,257 | 7.47 | 33,037 | 6.45 |
| 5-9 | 60,730 | 11.86 | 48,185 | 9.41 |
| 10-14 | 59,051 | 11.53 | 42,795 | 8.36 |
| 15-19 | 36,914 | 7.21 | 24,813 | 4.84 |
| 20-24 | 18,247 | 3.56 | 14,219 | 2.78 |
| 25-29 | 9,655 | 1.89 | 14,056 | 2.74 |
| 30-34 | 9,655 | 1.89 | 14,428 | 2.82 |
| 35-39 | 7,780 | 1.52 | 11,849 | 2.31 |
| 40-44 | 11,027 | 2.15 | 11,872 | 2.32 |
| 45-49 | 6,493 | 1.27 | 5,762 | 1.12 |
| 50-54 | 7,696 | 1.50 | 5,831 | 1.14 |
| 55-59 | 2,939 | 0.57 | 1,510 | 0.29 |
| 60-64 | 5,625 | 1.10 | 2,044 | 0.40 |
| 65-69 | 1,511 | 0.30 | 441 | 0.09 |
| 70-74 | 2,687 | 0.52 | 860 | 0.17 |
| $75^{+}$ | 1,568 | 0.31 | 626 | 0.12 |

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# Fig:Population Pyramid of Liben Zone, July 2000.




Source:Projected from the 1997 Census

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## Economy

Pasture-based livestock production is the main source of income in Liben zone. In general, pastoralists are scattered throughout the zone and herd a large number of camels, cattle, goats, and sheep. According to the last livestock census conducted by the Zonal Agriculture Department, households mostly own small ruminants and camels, which can better withstand recurring drought and/or overgrazing. Dairy products are mainly produced for local consumption.

Most households pursue migratory pastoralism as an adaptive strategy, although more and more people have begun to farm and raise animals along riverbanks, as they provide the only reliable source of water. These agriculturists mainly cultivate maize, sorghum, and vegetables and are increasingly using irrigation schemes along river basins, particularly since the recent influx of returnees and refugees from Somalia. In addition to irrigation-based farming, there are also some households who depend on the bi-annual rainy seasons 'gu' ( March – June) and 'deyr' (September – November) for farming.

Given its location, Dolo Odo district maintains important social and economic ties with Somalia proper and the adjacent northeastern region of Kenya, which is primarily Somali populated. The main market for livestock products is Kenya, specifically Mandera and Ramo towns. Livestock products are also traded with Somalia, though to a lesser extent given the civil war in that country. Additionally, the Gulf countries offer a lucrative market for Somali pastoralists,

especially Saudi Arabia and Qatar. However, a ban on livestock originating from Horn countries imposed by Gulf countries last year following an outbreak of Rift Valley Fever caused the fall of the livestock price. After the ban was lifted, livestock prices increased but are expected to decline again with the imposition of another ban in September 2000, after another epidemic was reported in Saudi Arabia and Yemen.

Finally, many commercial goods such as textiles, cosmetics, utensils, and foodstuffs are commonly traded with Somalia and Kenya over a network of dry seasonally passable roads.

## Political and Administrative Organization

Liben zone has three weredas, which are accountable to the zonal council, which, in turn, are accountable to the Regional Bureaus. Regional Bureaus are accountable to Regional Councils and are responsible for executing planning, organizing, managing, budgeting, and controlling the activities of the zonal offices.

Central ministries are only expected to give technical support and formulate policies. The Zonal Administration is seated in Filtu. Filtu can be accessed from Jijiga (the regional capital) from Addis Ababa via Negele by an all weather road. The distance between Filtu and the RHB in Jijiga is 1,550 km, with no direct air access.

Currently there are health, population, and drug policies in place that have proven useful the implementation of health and health related activities.

## Education

There are two secondary schools in Filtu and Dolo towns and 39 elementary schools, most of which are in rural areas. Mobile schools have been established for pastoralist communities in three encampments on a pilot basis, but their success has yet to be evaluated.

Total enrollment in all schools in the 1992 E.C. academic year was 10,972, of which 7,458 (68%) were males and 3,514 (32%) were females.[3] The dropout rate is reportedly high, mainly due to the pastoral lifestyle of the population.[4] Zonal officials are planning to build hostels (with accommodation and meal provision) to offset this problem. Health education, with an emphasis on HIV/AIDS, is occasionally provided in schools in collaboration with the ZHD.

There are 210 teachers in the zone, 196 of which are males and 14 are females. Nine of the teachers are diploma holders and the remaining have certificates. Of the diploma holders, 4 teachers are working toward getting their bachelor degrees.

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[3] Data on the enrollment rate per class and age group are not available. Data available on education in Liben Zone are incomplete and somewhat outdated.

[4] Interview with Ato Ibrahim Adem, head of the Education and culture department of the Zone. Exact data on the dropout rate is not available as well.

**Table: 2 Distribution of schools in Liben zone, Sep. 2000**

| School type | Urban | Rural | |
|---|---|---|---|
| Secondary School | 2 | - | 2 |
| Elementary School | 8 | 31 | 39 |
| **Total** | **10** | **31** | **41** |

Source: Liben Wereda Education and Culture Department

**Infrastructure**

The main road from Negele town to the border town of Siftu is an all weather road but is poorly maintained. This road connects Dolo and Filtu, the capital of the zone, which are 260 km apart. The only all weather road to Moyale is through Negele and Dilla, which is about 825 km from Filtu town. There is a dry weather road through Borena to Moyale, which is about 450 km from Filtu town.

Internal air transport is not available in the zone. There are weekly (Sundays) flights via Ethiopian Airlines to Negele, from where one can travel by road to Filtu via a 125-km an all weather road. All the main towns in Liben zone have access to five hours of electricity services via a generator (from 12 PM to 5:30 PM). The zone has radio communication.

There are no telephone and postal services in Filtu and Dolo but there are postal services and telephone facilities in Moyale. No banking and public transport services exist in the zone except in Moyale town.

According to a September 1997 census, there are 71,857 housing units in the zone, of which 6,372 are in urban and 64,485 in rural areas.

**Table 3: Distribution of housing units of Liben Zone by type of construction (Sep. 1997)**

| | Type of Construction | | | |
|---|---|---|---|---|
| Permanent | Improvised | Mobile | Others | Not stated |
| 23,223 | 15,377 | 32,758 | 100 | 399 |
| 4,303 | 957 | 1,913 | - | 199 |
| 18,920 | 14,420 | 30,845 | 100 | 200 |

Source: Somali Region Census Report, Feb. 1998

## V. Health and Health Related Indicators

There is inadequate information on health and health related indicators for the zone but there are some indicators for the region, as listed below.

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**Table 4: Health and health related indicators of SNRS and the Nation, 1991 EC**

| Indicators | Value SNRS | National |
|---|---|---|
| 1. IMR / 1000 | 96 | 110 |
| 2. U5MR / 1000 | 139 | 161 |
| 3. CBR / 1000 | 37.00 | 44.17 |
| 4. CDR / 1000 | 11.20 | 14.16 |
| 5. Life expectancy at birth | | |
| Males | 56.2 | 50.9 |
| Females | 52.9 | 53.0 |
| 6. TFR | 6.30 | 6.52 |
| 7. RNI ( %) | 2.58 | 2.92 |

**Source:** Health and Health Related Indicators, MOH, 1991 E.C.

**Table 5: Nutritional assessment results of Wt for Ht in Dolo Odo and Filtu districts of Jan. 2000**

| Name of District | Sex M | Sex F | Total | WFH <70% | WFH <80% |
|---|---|---|---|---|---|
| Dolo odo | 594 | 705 | 1299 | 17 (**1.30%**) | 253 (**19.47%**) |
| Filtu | 214 | 212 | 426 | 7 (**1.64%**) | 41 (**9.62%**) |
| Total | 808 | 917 | 1725 | 24 (**1.39**) | 294 (**17.04%**) |

**Source:** Summary of quarterly nutritional surveillance reports of PCAE

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## VI. Health Service Management and Provision

The health services delivery system in Liben zone is inadequate and underdeveloped. The government is the major provider of health services, with some support from NGOs such as PCAE. The Zonal Health Department, which was established in 1994, is the body responsible for planning, organizing, implementing, monitoring and evaluating health service activities in the zone. There is no wereda health management structure in the Zone. In Dolo Odo wereda, the health center coordinates all health activities but is constrained by a lack of administration and management mainly due to a shortage of middle level managers and administrative staff. Available staff have limited formal or extended training in management and administrative disciplines. There are, however, some written policies describing administrative procedures. The

zonal office is a five room dilapidated house that lacks basic office supplies such as shelves, cupboards, and filing cabinets. The ZHD has solar-powered radio and two 4WD cars.

There is one health center (in Dolo Odo) and 13 health stations/posts in the zone, which are all owned by the government. These health institutions cover only 17.57% of the population in the zone. There is one district hospital under construction in the zonal capital, Filtu. It will be completed soon (in 2 or 3 months time). The health stations are unevenly distributed, unequipped and understaffed. The ZHD and health workers in the clinics claim to have sufficient supply of drugs.

There are 28 health professionals in the zone including 3 CHAs working in health stations (see table). Health service provision in the zone is mainly curative focused, with little emphasis given to preventive and promotive aspects of the health care system.

There are two NGOs in the zone supporting health related activities. These are Pastoralists Concern Association Ethiopia, a local NGO and Cooperazionale Internationale (COOPI). PCAE is involved in EPI activities, training of TBAs, child spacing, family planning education, rehabilitation of ponds, and nutritional surveillance as part of an ongoing emergency relief program. Small-scale loans are provided to women in the zone to increase household income through a Group Guaranteed Revolving Fund system. COOPI is involved in the provision of water to the area by constructing ponds, *birkas* and drilling borehole.

With regard to community health service, few health posts constructed by government and NGOs (e.g. PCAE) function as health stations. In addition, the zonal health department trained 14 TBAs last year but it was unclear whether they are functional or not. PCAE has so far trained 35 TBAs and the training is meant to enable the TBAs to use Simple Delivery Kits (SDKs) whenever they attend delivery.[5] Refresher training is also given intermittently. PCAE has trained EPI vaccinators from the community who also support other health-related activities.

The mothers pay the TBAs per birth according to the culture of the community. A health post is under constructions at Siru, 50 km north of Filtu. Generally, community health services are poor. Legal and illegal drug vendors are rampant in the zone.

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**Table 6: Distribution of health institutions by Wereda and village in Liben Zone, Sep.2000**

| Wereda | Name of Village / town | Health Center | Health Station/post |
|---|---|---|---|
| Filtu | Filtu | - | 1 |
| | Haysoftu | - | 1 |
| | Ayile | - | 1 |

[5] SDK is composed of a razor blade, a bar of soap, a piece of plastic sheeting, a pair of gloves, TTC eye ointment, and a piece of sterilized thread used to cut umbilical cords. It is sold at 2 Birr each for the parturient and is locally known as 'Omul Udon' literally translated as healthy mother.

| | | | |
|---|---|---|---|
| Dolo Odo | Dolo | 1 | - |
| | Rama | - | 1 |
| | Bokolmayo | - | 1 |
| | Softu | - | 1 |
| | Side | - | 1 |
| | Buramino | - | 1 |
| Moyale | El lay | | 1 |
| | El gof | | 1 |
| | Chilanko | | 1 |
| | Kadaduma | | 1 |
| | Odot | | 1 |
| | **Total** | **1** | **13** |

**Table 7: Distribution of health manpower in Liben zone, Sep. 2000**

| Category | Health Center | Health Station | ZHB |
|---|---|---|---|
| Physician | - | - | 1 |
| Senior Nurse | 4 | - | 1 |
| Junior Nurse | 2 | 9 | - |
| Health assistant | 1 | 3 | 1 |
| Pharmacy Technician | - | - | 1 |
| Junior Lab. Tech. | 1 | - | - |
| Sanitarian | - | - | 1 |
| Vector Control Personnel | - | - | 1 |
| X-ray Technicians | - | - | 1 |
| CHA* | - | 3 | - |
| **Total** | **8** | **15** | **8** |

*Institutionalized in health stations

**Table 8: Health worker to population ratio in Liben Zone, Sep.2000**

| Category | Ratio |
|---|---|
| Physician | 1:512,190 |
| Nurses | 1:102,190 |
| Junior Nurses | 1:34,146 |

Patients in Filtu wereda (e.g. Filtu, Haysoftu) are referred to Negele Hospital but patients from areas around Dolo Odo and Moyale are usually referred to Mandera Hospital (a town in Kenya) and Moyale HC or Gimbo Hospital (Kenya) respectively.

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Financial health service information could not be obtained as the responsible individuals both in the zonal health and finance offices were in Jijiga.

**Ten most commonly cited outpatient categories in health institutions of Liben Zone 1999**

1. Malaria
2. Respiratory tract infection
3. Anemia
4. Malnutrition
5. Intestinal Parasitosis
6. S.T.D
7. Gastritis
8. A.F.I excluding malaria
9. Skin diseases
10. Gastrointestinal disease

**Common causes of admission at Dolo Health center in 1991 EC**

1. Malaria
2. Dehydration 2° to Diarrhea
3. Pneumonia
4. Typhoid fever
5. Puerperal sepsis

**Health information system**

At the ZHD, there is no planning or statistical unit. Registrar workers keep occasional records from zonal health institutions on file. No data compilation is conducted unless requested by the Regional Health Bureau.

Poor communication facilities between health institutions and the ZHD and shortage of health personnel have contributed to a complete lack of health information system.

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## VII. Status of the Eight PHC Components

### 1.Water supply and environmental Sanitation

An inadequate supply of safe water and poor environmental sanitation are the major causes of morbidity in developing countries such as Ethiopia. The water supply of the zone is very poor and insufficient for both human and livestock consumption. The major sources of water are ponds and rivers. There are also few boreholes and *birkas* (cement concrete cisterns) constructed by SNRS and NGOs. There are 3 boreholes in Ayile, Siru and Hay softu, all are in Filtu wereda. Excavations have failed in other area due to the scarcity of under ground water. Wells also serve as a source of water during rainy and early dry seasons.

The majority of the population rely on pond water collected during the rainy season. Currently, the ponds are running short of water and are typically replenished during the short rainy season, known as 'deyr.'

As the majority of the population depend on unsafe water and are more concerned about its availability, many children and adults suffer from water borne diseases. Both human and livestock use water from the same sources with no water sanitation or protection. The zonal health department does not support any water or environmental sanitation activities due to budgetary constraints.

There are about 21 water points in Filtu wereda, which are inadequate for the size of the population. As a result, the dry-season pastoralist community moves to the Genale and Dawa riverbanks. To overcome the prevailing water problem, people try to dig temporary reservoir wells that can conserve water during the rainy season. However, most wells are too shallow to hold sufficient amount of water for both livestock and human consumption. PCAE and COOPI are constructing *birkas* with a capacity of 400 m° in some areas.

The sanitation status of the zone is also poor. No more than 2% of the population has access to sanitation facilities. The majority of the population defecates in open fields.

### 2. Expanded Program of Immunization (EPI)

In Liben zone, there are 8 static and 16 outreach sites where vaccination is provided to under one children and women of childbearing age group.[6] In static sites, the service is being given on daily basis while at the outreach sites it is given on a monthly basis. Cold chain is maintained through solar and kerosene refrigerators.

All the health stations provide static service or serve as outreach sites for the health center in Dolo except two health stations in Moyale Wereda where EPI service is available. All EPI activity in Filtu wereda is carried out by PCAE in collaboration with the zonal health department.

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**Table 9:Distribution of static and outreach sites in Liben Zone, Sep. 2000**

| Wereda | No. Static | No. Outreach |
|---|---|---|
| Filtu | 3 | 12 |
| Dolo Odo | 2 | 4 |
| Moyale | 3 | - |
| **Total** | 8 | 16 |

In 1992 E.C, 2,207 children under two in Filtu wereda received all types of vaccines and 1,228 TT vaccinations to women in reproductive age group were given.

[6] In general, the objective of EPI is to provide vaccination services to all children under 2 years, as well as all pregnant women, against the six major childhood diseases.

**Table 10: Immunization coverage of Filtu Wereda, Liben Zone ,1992**

| Vaccine | Coverage |
|---|---|
| BCG | 69% |
| DPT3 | 17% |
| Measles* | 24% |
| TT2 (PW) | 16% |

Source: PCAE

*Prior to the measles immunization campaign currently under way in all weredas

### 3. Maternal and Child Health / Family Planning

The major activities of the MCH/FP program include antenatal care, delivery service, postnatal care family planning, growth monitoring, sick baby clinic, control of diarrheal diseases, and vitamin A supplementation. Integrated services of MCH/FP are given only in Dollo Odo health center where there is relatively sufficient staff. In the other health stations, antenatal care and Family Planning are the main MCH/FP services. Here, under five patients (sick baby) are seen together with adults. ORT corners are found only in the Dolo Odo health center.

Even though exact figures could not be obtained due to poor recording of activities, the percentage of women receiving family planning services and pregnant who received antenatal care at least once during their pregnancy is said to be very low. Filtu health station on average has four ANC attendants and 6 FP clients per day. Ayile health station has much lower clients. There are no family planning services on outreach basis integrated with EPI or no CBDS.

### 4. Promotion of food supply and proper nutrition

Malnutrition is the major cause of growth retardation and increases the predisposition to diseases and death in infants and children, particularly in drought susceptible areas such as Liben zone. Nutritional assessment conducted in August 2000 by PCAE (not released) in Filtu and Dolo Odo wereda revealed that the global malnutrition rate (WFH <80%) is 1.5% and 2.6% respectively.

All health institutions are supposed to support growth monitoring and nutritional demonstrations but data could not be obtained on such activities in the ZHD or in the visited health institutions. Food items appear to be available in the market at cheap prices through the ongoing emergency operation in the area.

### 5. Prevention and control of locally endemic diseases

Malaria, tuberculosis and diarrhea diseases are some of the major causes of morbidity and mortality in the zone.

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Malaria

Though the magnitude is not clearly known, this disease is one of the most common ailments. It is reported that around 90% of the population lives in malaria endemic areas of the zone.

The majority of malaria cases are caused by *Plasmodium falciparum*. Malaria claims the lion's share of deaths in the zone. Malaria control programs are integrated in the conventional health care delivery system. It functions as a section in the ZHD and is headed by vector biology assistants. Malaria treatment is free in the zone. DDT spraying is occasionally done in some pastoralist encampments residing close to ponds. But, because it is poorly budgeted, poor communication facilities and lack of manpower it is not in a position to coordinate a control program throughout the zone effectively.

Tuberculosis

Like malaria, routine health information on TB prevalence and treatment is not available in the zone. There are also no adequate diagnostic facilities in the zone. Patients are referred (self or institutional) to Negele, Mandera or Gimbo hospitals where intensive phase of the treatment will be started and referred down to nearer health institutions during the continuation phase if anti-tuberculosis drugs are available. However, patients usually buy the drugs from illegal drug vendors.

There is no tuberculosis control program in the zone. Since the reported cases of STD are among the top 6 diseases in the zone, HIV/AIDS is likely to spread quickly, which may lead to an increase in the number of cases of tuberculosis.

Diarrhea diseases

As the water supply and sanitation status of the zone is very low, diarrheal diseases are affecting a high number of people in the zone, particularly children. It is reported that there is ORT corner only in Dolo Odo Health center. The absence of ORT corner in other health institutions indicates that the zonal diarrhea control program is in its infancy.

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**6. Provision of essential drugs**

According to the zonal pharmacy department head, Liben zone has adequate supplies of essential drugs. The zonal health department store is in Filtu town, which appears to be in poor condition. The zone receives their budget and other drugs from the regional health bureau in Jigiga. The ZHD distributes the drugs to health institutions in the zone. The per capital drug expenditure is about 1.00 Birr / capital in 1992 E.C.

**Commonly used drugs in the health center.**

1.Ampicillin
2.Chloroquine
3.Paracentamol

4.Procaine Penicillin
5.ASA
6.ORS
7.Antacids
8.Mentronidazole
9.Ringer lactate and DNs
10. Beranthine Cough Syrup
11. Tetracycline
12. Fansidar

**Commonly used drugs in the health stations in the zone**

1.Procaine Penicillin
2.Tetracycline
3.Ampicillin
4.Chloroquine
5.Mebendazole
6.Metronidazole
7.ORS
8.Paracetamol
9.ASA
10.Antacids

**7. Health Education**

Health education is given only in Filtu health station and Dolo Odo health center. Some teaching aids such as posters are used occasionally. Common topics are HIV/AIDS, family planning, harmful traditional practices and malaria.

PCAE has an IEC program on family planning and FGM, focusing on awareness creation and mass mobilization through the help of religious leaders. It has distributed a lot of posters and T-shirts and has given health education to a total of about 3,300 attendants in a number of sessions in Filtu wereda.

**8.Treatment of common illnesses and injuries**

In the zone treatment of patients is done on an out patient basis except in Dolo health center where in-patient service is provided in the ward with 16 beds.

## VIII. Discussion and Conclusion

The Liben zonal health department exercises a certain degree of autonomy with respect to establishing local health priorities and planning its own program implementation. It operates within a defined geographical administrative unit of the local government and has no wereda offices due to a shortage of resources, including manpower. This shortage has had a detrimental effect in management of PHC activities in the zone.

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Population size and distribution and the lack of progress in the agriculture, education, and communication sectors, as well as the capacity of NGOs and other governmental bodies, all influence the health of the community. Efficient and effective administration of the zonal health system enables all involved sectors to play their various roles in a coordinated manner so that the population of the zone will have better access to health care that suits their needs.

Reviews of the zone's health profile need to continue in order to monitor the health system of the area and verify if it is running appropriately. It can also provide crucial baseline information and identify problems both in terms of magnitude and importance. One of the major problems identified by this study is the absence of a well-staffed zonal health department that can manage the health system up to the grass root level, which often are not represented by wereda offices.

The other major problems prevailing in the health sector which contribute to the poor health status in the zone are as follows:

### A. Low Safe Water Supply and Sanitation Coverage

Inadequate water both for human and livestock consumption is the most important problem observed in the zone. This is due to a shortage of rain during the long rainy season (gu). The few available ponds are inadequate and silted with a reduced capacity. PCAE and COOPI are rehabilitating and constructing some ponds and Biles, however.

The major health problems of this community or zone are high morbidity rates, which is related to poor sanitation and unsafe drinking water. Currently, measures undertaken to address this problem do not reflect the magnitude and severity of the problem. The fact that the ZHD does not support safe water supply and sanitation activities is astonishing. Even though lack of financial support may be considered, the ZHD lacks a clear commitment to and understanding of the PHC approach, which is needed to more effectively use the meager government allocated budget properly. This problem needs to be addressed by the government, community and NGOs.

### B. Low Health Service Coverage

Existing health facilities are inadequate to cover the needs of the population in terms of coverage by units (17.57%) and in terms of activities and programs offered. Two Hospitals (Mandra and Gimbo) in neighboring Kenya are used as referral centers for Dolo Odo and Moyale Weredas, since the nearest hospitals in Ethiopia are in an even greater geographical distance and provide limited health services. The district hospital under construction will be completed soon but an adequate and qualified number of staff with sufficient incentive have to be allocated. The hospital also has to be equipped with adequate supplies and equipment.

There is no clear distinction between health posts and health stations in the zone. All Health posts function as health stations and this may complicate efforts to budget and allocate manpower levels.

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The construction of health posts (e.g. Siru) and the hospital will improve the coverage. In the construction of new health institutions, the pattern of mobility of the pastoralists has to be considered as the existing health care services haven't been appropriately designed to reach these group of people.

The zone is understaffed and receives little support and supervision from SRHB, though efforts are underway to increase staff (1 CHA, 1 health assistant, 1 senior nurse and 1 sanitarian are sent for training in Junior Nursing, seminar Nursing, Health officer and management respectively). There is a pronounced shortage of all types of skilled human resource in the zone. The problem is worse in administrative staff. This is a persistent problem and has to be resolved in order to improve the quality of health care.

### C. Incomprehensive PHC Programs

Health care activities in the zone are mainly restricted to curative care of some of the most common diseases and are not as such complemented by preventive programs. Most of the health institutions are either in urban centers or along the main roads. There are no comprehensive PHC activities in the zone.

The presence of only 24 static and outreach sites for a population of about half a million indicates the low coverage of EPI services. DPT3 coverage is very low (17%) in Filtu Wereda where the best EPI activity exists. The situation in the other two weredas could only be worse.

The relatively high coverage (69%) of BCG in this wereda indicates a considerably high dropout rate. Lack of commitment from *kebeles* (PAs) and poorly trained CHA might be the contributing factors.

Efforts have to be made to improve EPI coverage and reduce the rate of defaulters.

About 67% of the population are mothers and children under five but so far reproductive health and child health programs are not given priority. MCH related problems such as obstructed labor, APH, and PPH and childhood illnesses are among the main concerns of the community and are related to the lack of adequate services.

Females continues to have less access to education compared to males. Many studies have clearly shown the relationship between literally status of women and family planning usage and a decrease in infant and child morbidity and mortality. Illiteracy among women hinders health development. One recommendation is to increase coordination among the zonal education department, the women's affair office, ZHD and the community in order to support education and health programs that specifically target women.

The provision of food and proper nutrition in the zone is currently satisfactory due to the relief operation. However, strategies have to be designed to promote the supply and safety of food. Below are some strategies that could be employed:

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- Educating the community in nutrition and health in collaboration with other sectors such as zonal agriculture Department, and the DPPO[7]
- Targeting the poor and nutritionally vulnerable groups (women and children) through special feeding programs etc.
- Preventing and treating infectious diseases that expose children and the poor to malnutrition.
- Addressing specific micronutrient deficiencies such as vitamin A deficiency, anemia in pregnant and lactating women etc. This strategy has to be promoted in health service programs.

Malaria control programs have to be strengthened with adequate manpower and other essential resources including vehicles, pharmaceutical and laboratory supplies. A tuberculosis control program is expected to begin soon in the zone and efforts have to be made to support it.

### D. Poor Health Management Information System (HMIS)

Health information is very essential for health planning, but the health information system of the zone is inadequate. A systematic reporting system from the health institutions to ZHD and from ZHD to RHB is lacking. The HMIS is restricted to irregular reports by health facilities on limited morbidity data. There are no statistics section or trained staff in the ZHD. This problem needs immediate attention.

### E. Poor transportation and Communication

Using various criteria for priority setting (such as magnitude, community concern, health staff concern and feasibility for intervention), the following specific problems are identified and need to be addressed:

* Poor organization and coordination of health services
* Shortage of safe water supply and poor sanitation
* Low EPI coverage
* Low MCH/FP services coverage
* HIV/AIDS and Tuberculosis
* Poor HIMS

## IX. Problem Identification and Prioritization

Identification of health and health – related problems was done using materials obtained from the ZHD, NGOs and other government offices that are assumed to reflect the situation in the zone. In - depth interview with health professionals and key informants in the community and visit to health institutions were also utilized in identification of specific problems and their prioritization. Therefore the following specifics problems are identified.

[7] Health education is restricted to few health institutions and is rarely part of school health activities.

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1. *Health problems*

The following diseases are major causes of morbidity and mortality in the area

- Malaria
- Respiratory tract infection like pneumonia, tuberculosis
- Diarrhea diseases and helminthiasis
- STD including HIV/AIDS
- Malnutrition

2. *Problems related to health service management and delivery*

- Absence of wereda health offices or management
- Poor organization and coordination of health services
- Low EPI coverage
- Low MCH / FP services
- Low community awareness and involvement in preventive and health promotive activities
- Non – functional community health service
- Shortage of safe water supply and poor sanitation
- Scarcity of resources (manpower, facility and finance)
- Poor HIMS
- Lack of training and refreshment courses for health and administrative staff

## X. Recommendations

The findings of this health profile have led to a comprehensive understanding of the main health problems and current health services in the zone. Based on this understanding, the following recommendations are made:

1. A critical mass of human resource recruited from the SNRS should be successively developed (trained) and deployed to attend to the acute needs of the ZHD. This will ensure the availability of an appropriate mix and adequate number of professionally competent and personally committed health and support personnel.
2. The ZHD has to be staffed well and strengthened technically and with other facilities like cars, offices, furniture etc. and wereda health authority have to be set up. This will enable the formation of a management body that plans, organizes, and directs health and health-related activities
3. IEC activities have to be strengthened to raise the awareness of the community about HIV/AIDS. This is a neglected tragedy in the area despite the alarming increase in the prevalence of STDs and other AIDS related complexes.
4. Efforts have to be made to raise the immunization coverage through strengthening existing outreach sites and opening new ones. The outreach sites have to be utilized for integrated services like FP. Integration of animal vaccination with human vaccination should be initiated as well since livestock is the economic mainstay of nomadic pastoralist communities in the zone.
5. PHC institutions should be constructed and appropriately and adequately equipped and staffed. This should be given priority over building expensive hospitals.

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6. Community health workers (TBAs, CHAs, CBRHAs) should be trained and supervised regularly. Full and decisive involvement of the community should be encouraged to enhance sustainability.
7. As a significant proportion of diseases are water related, the District Development Office and other responsible bodies should construct more ponds and dig boreholes to alleviate the severe water shortage in the zone.
8. ORT corners have to be established and facilitated with the necessary materials in all health institutions.
9. Special attention is needed to improve the record keeping and reporting systems in all health institutions and the ZHD. The health data should be properly analyzed, interpreted, and utilized.
10. A tuberculosis control program has to be instituted in the zone immediately as the prevalence of the disease in the zone is increasing. TB clinics have to be set up in some of the health institutions with the necessary equipment, reagents, and drugs.

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Save the Children®

# HEALTH PROFILE:

## Afder Zone
## Somali National Regional State
## Ethiopia

## October 2000

CCRDA

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## *Acronyms*

| | |
|---|---|
| ADC | Austrian Development Corporation |
| CBDRHA | Community Based Reproductive Health Agent |
| CBR | Crude Birth Rate |
| CDR | Crude Death Rate |
| CHA | Community Health Agent |
| CHW | Community Health Worker |
| DDO | District Development Office |
| EPI | Expanded Program on Immunization |
| FGD | Focus Group Discussion |
| FP | Family Planning |
| HFA | Health for All |
| HIV/AIDS | Human Immuno Deficiency Virus/ Acquired Immuno Deficiency Syndrome |
| HSDP | Health Sector Development Program |
| ICRC | International Committee of the Red Cross |
| IMR | Infant Mortality Rate |
| MCH | Maternal and Child Health |
| MOH | Ministry of Health |
| MSF/H | Medecines San Frontiers/Holland |
| MUAC | Mid upper arm circumference |
| NCA | Norwegian Church Aid |
| NGO | Non-Governmental Organization |
| PCAE | Pastoral Concern Association of Ethiopia |
| PHC | Primary Health Care |
| RHB | Regional Health Bureau |
| RWB | Regional Water Bureau |
| SCF/US | Save the Children Federation/USA |
| SNRS | Somali National Regional State |
| STD | Sexually Transmitted Disease |
| TB | Tuberculosis |
| TBA | Traditional Birth Attendant |
| TFR | Total Fertility Rate |
| UNECA | United Nation's Economic Commission For Africa |
| UNICEF | United Nations Children's Fund |
| WFP | United Nations World Food Program |
| WHO | United Nations World Health Organization |
| ZHD | Zonal Health Department |

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# 1. Introduction

The Alma Ata Conference in 1978 was an important milestone for public health and was a response to widespread dissatisfaction with existing global health services. It came at a time when, despite the efforts of many countries and the UN World Health Organization (WHO) in the late 1960's and early 1970's to improve and extend health services, a large number of people, particularly in the rural areas of developing countries, had no access to health care. The conference concluded that primary health care (PHC) was the route to health for all. The concept of health for all (HFA) was actually coined in this conference (1).

Since the conference, experience has shown that developing countries can successfully provide health for all. To do so, governments must have a strong determination and dedication to the approach. China, Costa Rica, Sri Lanka, and the State of Kerala in India have followed this approach and have successfully managed and implemented PHC activities and mobilized communities, which is an important component of PHC. These countries have achieved a remarkable reduction in infant mortality in spite of low average national income per capital. Their success is primarily attributed to a sustained political commitment to the improvement of health and welfare of all populations.

In Ethiopia, the Health Sector Development Program (HSDP), like the National Health Policy, was developed after a critical examination of the nature, magnitude and root causes of the prevailing health problems of the country. The program was a result of a renewed awareness of newly emerging health problems and was founded on a commitment to democracy and decentralization. It accords appropriate emphasis to the needs of less privileged rural populations, which constitute the overwhelming majority. The proposed goals of the HSDP are realistic goals, as are the means for attaining them. Through the HSDP, the government proposes that health activities must utilize all accessible internal and external resources (2).

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However, Ethiopia has one of the poorest health indicators, compared to other low-income countries. The indicators for the Somali National Regional State (SNRS), located in southeastern Ethiopia, are particularly low and is primarily attributed to high prevalence and incidence of preventable infectious diseases and nutritional deficiencies. Poverty and low education levels are also prevalent among a vast majority of the population (especially among women) in this and other parts of the country. Inadequate access to clean water and sanitation facilities and to health services has also contributed to the burden of health. Cultural factors such as a preference for traditional remedies and a natural stoicism have contributed to the low poor health status as well (3).

In order to adequately address the health needs of communities in Ethiopia, detailed information is required on the current situation. A situational analysis is fundamental for planning, implementation, and evaluation purposes. The purpose of this paper is to provide a sound baseline information on Afder Zone, which is one of the nine zones in the SNRS with poor health services. The zone has no health profile and action plan, and health units in the zone are rendering service without formal planning. This paper will attempt to fill this gap and answer the following questions: What are the major health problems? What health units are available? What proportion of the population utilizes the health services? How are human

resource and materials deployed? This study will hopefully be used to formulate an appropriate and realistic action plan that addresses the priority health and health related problems in the zone and places greater emphasis on the primary health care approach.

The author would like to express his gratitude to SCF/USA staff for the financial and logistic support in undertaking this health profile. Special thanks go to Mr. Poul Brandrup and Ms. Margarita Clark. Dr. Alemayehu Worku, Assistant Professor of Biostatistics at Addis Ababa University, also provided a critical review and commented on the study process and output. The author also wishes to thank staff members from the SNRS RHB, Afder ZHD, health workers at different levels, and the SCF/US office in Gode, as well as members of the community without whose collaboration this study wouldn't have been a reality.

# 2. Objectives and Methodology of Health Profile

## *General Objective*

To review the health and health-related situation of Afder Zone of the Somali National Regional State (SNRS).

## *Specific Objective*

- To review and describe ongoing health service activities
- To assess the implementation of PHC programs
- To identify and prioritize health problems
- To develop an action plan

## *Methodology*

The health profile was conducted using the following sources of information:

- Health institution records
- Survey reports by the United Nations Economic Commission for Africa (UNECA)
- The 1998 population and housing census of Somali Region
- Health Sector Development Program for Somali Region, RHB, 1998
- In depth interview of health workers
- Focus group discussions (FGD)[1]
- Site visits to different health institutions

[1] Two FGDs were conducted in Bare and Cheretti districts. The discussions were conducted by a group of 8 individuals. The FGD comprised the administrator of the district, a religious leader, the district development office head, a community health worker, and four community members. A medical doctor, a MPH resident, moderated the discussion.

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The lack of an information management system in the zone limited the research process and possibly provided an incomplete picture of the existing situation. To alleviate this problem, a review of UNECA survey reports was conducted.

# 3. Background Information

## *3.1 Geography*

Somali National Regional State (SNRS) is one of the regional states of the Federal Democratic Republic of Ethiopia. It covers the eastern and southeastern parts of the country and covers an area of 375, 000 sq. km. It shares borders with the Oromia Regional State in the west and southwest, Afar regional state in the north, and Dire Dawa Administrative council in the northwest.

The SNRS shares international boundaries with Kenya in the south and Djibouti and Somalia in the east. The region has nine administrative zones, eight districts, and 67 towns.

The terrain varies between arid and semi arid with forested districts in the southeastern part of the region. The weather is hot most of the year and ranges between 25 and 40 degree centigrade. The annual rainfall ranges between 386 and 660 mm. There are normally two rainy seasons (March-April and October-December). The last good rains were in 1997 during the El Nino phenomenon. Since then the rains have been very scarce and grossly inadequate, which culminated in the 2000 drought.

Afder zone shares a border with Gode zone of the SNRS in the north and northeast, with Liben zone of SNRS in the southwest, and with Borena zone of Oromia National Regional State in the west.

## *3.2 Demography*

The population of Afder Zone is estimated to be 352,472. The total number of the male population is 197,726, while the female population is estimated at 154,746, with a male to female ratio of 1.28:1. The dependency ratio of the Zone is 1.11, which is greater than the national average of 0.88.[2] The population composition of the Zone is similar to that of a developing nation with a broad base at the lower age group and a narrowing apex as seen in Table 1. The under-15 population comprises more than 50% of the total population.

## *3.3 . Migration*

Migration is a major problem in Zone. The political unrest and clan conflict in neighboring Somalia has resulted in the massive migration of people to Afder and other zones in the Region. A survey conducted by UNECA showed that the majority of the migrants are teens

[2] The age dependency ratio is the ratio of persons in the 'dependent' ages (under 15 and older than 64 years) to those in the "economically productive" ages (15-64 years) in a population.



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and youths in the 10-29 age group. In the surveyed districts of the Zone, 32.2% of the migrants migrated to live with relatives or family, 20.6 % to search for pastureland for livestock, and 17.7% to look for seasonal jobs.

**Table 1: Age and sex Distribution of Afder Zone population, 2000.**

| Age | Male | | Female | | Total |
|---|---|---|---|---|---|
| | No | % | No | % | |
| 0-4 | 25,672 | 6.7 | 22,248 | 5.8 | 47,921 |
| 5-9 | 42,008 | 10.9 | 32,174 | 8.4 | 74,183 |
| 10-14 | 45,292 | 11.8 | 29,864 | 7.8 | 75,157 |
| 15-19 | 30,520 | 7.9 | 18,484 | 4.8 | 49,005 |
| 20-24 | 16,782 | 4.4 | 11,518 | 3.0 | 28,301 |
| 25-29 | 8,975 | 2.3 | 10,329 | 2.7 | 19,305 |
| 30-34 | 8,022 | 2.1 | 10,936 | 2.9 | 18,959 |
| 35-39 | 6,712 | 1.8 | 9,934 | 2.6 | 16,647 |
| 40-44 | 8,967 | 2.3 | 9,318 | 2.4 | 18,285 |
| 45-49 | 5,705 | 1.5 | 4,827 | 1.3 | 10,532 |
| 50-54 | 6,063 | 1.6 | 4,315 | 1.1 | 10,378 |
| 55-59 | 2,582 | 0.7 | 1,372 | 0.4 | 3,954 |
| 60-64 | 3,987 | 1.1 | 1,664 | 0.4 | 5,651 |
| 64- | 3,632 | 0.9 | 1,809 | 0.3 | 5,441 |
| Total | 214,919 | 56.1 | 168,800 | 43.9 | 383,719 |

Source: The 1998 Population and Housing Census of the SNRS (CSA).

# 4. Health Determinants

## *4.1 Education*

There are seven schools in Afder Zone covering grades 1 to 7. The total number of students enrolled in the 1998/1999 year was 3,516, with male students of 2,366 and female students of 1,150. There are 123 teachers in the Zone out of which 52 are graduates of Teachers' Training Institute (TTI). 68 teachers are being trained in TTI summer programs and three are untrained. Out of the 123 teachers, 104 are males and 19 are females. In the 1998/1999 year, 1,500 students interrupted their education. According to the Zonal Education Bureau, the main reason for the interruption of their education was lack of food and water.

According to the survey done by UNECA in 1997, of the 15,107 persons surveyed whose age were five or above, 8,487 or 56.2 % were illiterate. The proportion of female illiteracy is greater than that of males. Of those who attended school, 34.2% received their education either from the literacy campaign or priests/Koranic schools, while only 7.8 % attended secular school (5).

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## *4.2 Economy*

In Afder Zone, 80% of the population are pastoralists.[3] The recent drought and crop failures have depleted household resources and led to significant livestock loss. At the household level there are limited food reserves. The majority of households are unable to produce or access food to sustain their lives. Information obtained from the zonal administration estimate that 280,000 people (76% of the population) are in need of food assistance (6).

According to the Zonal Agricultural Department, agricultural activities are undertaken in all eight districts. In Dollo Bay district, sorghum, barley, millet, and vegetables like apples, mangoes, lemons, and bananas are commonly produced. Agricultural activity is supported by river intakes from Genale River. However, all agricultural activities ceased when the drought hit last year. Generally, agro-pastoralists were the worst hit by the drought since they could not count on the benefits of large, livestock herds. In three consecutive seasons in which crops failed, most agro-pastoralists have depleted their seed reserves.

Information on the loss of animals during the drought period and the subsequent rains after two years varies greatly. Reliable figures are hard to come by, as pastoralists are in general reluctant to disclose the number of animals they have. According to the District Development Office (DDO) in Bare/Afder Zone, the drought resulted in the following losses:

- Camel herds were decimated by 20-25% since mid 1999
- Cattle herds were decimated by 75-90%
- Shoats were decimated by 40-60% (depending on the mix, as sheep are more vulnerable to drought).

Afder Zone is known for its salt mines at Godosbo, located 35 km from Hergelle on the main road to Gode. The Zone is also said to be rich in marble and natural gas deposits(6).

## *4.3 Housing with water and sanitation facilities*

The majority of the population in Afder Zone use unprotected water sources. There are three motorized urban water schemes in El kere, West Imi, and Bare but these are largely inadequate. Hergelle town has no water supply system.

Most people in the zone fetch water from hand-dug wells called "Las" in Somali. Years back, MSF/Holland installed one hand pump but it has now fallen in to disuse due to lack of maintenance. Another big scheme in Dobey town, West Imi district, is no longer operational due to lack of spare part and fuels. Two hand pumps installed by MSF/Holland in Cheretti are operational due to the flooding of the Web River, which passes through the town. Latrine facility is available only in few households.

## *4.4 Ethnicity-Religion*

[3] Interestingly, in El kere district, 80% of the population are farmers with relatively few livestock.

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The majority of the population in Afder Zone consists of ethnic Somali (95%) and almost the entire population is Moslem (95%).

## *4.5 Communication and Electricity*

The capital of the Zone is Hergelle. The roads communicating Hergelle and the other districts in the Zone are non all-weather. During the rainy season, some of the districts are completely cut off from Hergelle town. There is no telephone communication among the districts in the Zone and between the Zone and Jigjiga. There is only radio communication between Hergelle and Gode through the zonal police office. To date, there is no postal service in Afder Zone. Public transport is not available and people have to use trucks and vehicles owned by the government or NGOs. There is no electricity in the Zone and people use kerosene lamps.

## *4.6 Socio-Political & Administrative Set-up*

Afder Zone is administratively divided in to eight districts, including Hergelle, Cheretti, El kere, Bare, Dollo Bay, Guradhamole, Gorobekeksa, and West Imi. The zone is headed by the zonal administration office under which, there are eight administration offices. Under the zonal administrative council, there are different offices, such as the zonal educational department, the agricultural department, health department, finance office and trade office. At the district level, there are district development offices (DDO) which are responsible for all development and the social sectors in the districts.

## *4.7 NGOs in the Zone*

### *ICRC*

The International Committee of the Red Cross (ICRC) has supported ongoing program over the past four years. Activities include well protection and training of village women in basic Primary Health Care.

### *PCAE*

Pastoralist Concern Association of Ethiopia (PCAE) has undertaken an overall survey in the Zone and was involved in the collection of early warning information. PCAE also conducted regular nutritional surveillance.

### *SCF/USA*

Save the Children Federation/USA was involved in the distribution of maize seed in response to the drought. Recently, SCF/USA has begun preparations to launch a program in the Zone and has assigned a team to monitor the situation.

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### *NCA*

Norwegian Church Aid (NCA) had been running a feeding program and providing health care in El Kere. NCA also was operating a feeding program in Cheretti town. NCA was involved in the distribution of seed, pesticide, water tankering and food rations.

### *UNICEF*

UNICEF has recently assigned a health consultant to Afder Zone to coordinate capacity building activities targeting health workers in the Zone. UNICEF is making preparations to open an office in the Hergelle Hospital compound.

### *WFP*

The UN World Food Program (WFP) is financing one food monitor for each district and one coordinator at the zonal level, working through PCAE. WFP distributes food in collaboration with the Zonal Disaster Prevention and Preparedness Department (DPPD). The DPPD uses 30 distribution points in Afder Zone.

## 5. Health Service Activity and Health Status

### *5.1 Distribution, type and management of health institutions*

In Afder Zone, there are two Health Centers, seven clinics, and one hospital. The Health Centers are found in Cherettti and El kere districts. The clinics are situated in Hergelle, Godosbo town of Hergelle district, Bare, Woldiya town of Dollo bay, West Imi, Gorobekeksa, and Goreda mole. The hospital is in Hergelle and is newly built but is unequipped and unstaffed.

The Hergelle clinic is housed about one km away from the town. There are two Junior Nurses, one mid wife Nurse, two Health Assistants, and one Community Health Agent (CHA). The clinic has three administrative staff and also uses staff from the Zonal Health Department (ZHD), since both are housed in the Hospital. One Junior Nurse is assigned in ZHD as a pharmacist, and he serves as a pharmacist for the clinic.

In Godosbo there is one clinic known as Afder clinic. It was built by MSF/Holland and is staffed by one Health Assistant. In Gorobekeksa, there is a clinic reportedly but there is no health worker there. In Goreda mole there is one nurse working in the clinic. In West Imi there is one Public Health Nurse and one Health Assistant, though the HA is currently not working for reason not known by the ZHD.

The El Kere Health center, which was rehabilitated in 1989 EC, is inoperational, and NCA had been using the Health Center as a temporary feeding center. During the time of visit the health

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center was located in a one-room rented house. Health services were non-existent, but a health assistant was observed selling drugs over the counter.

In Bare town, there is essentially no health service as well. A health station constructed by MSF/Holland collapsed in 1997 G.C. after the town was flooded and has not been repaired since then. The clinic runs out of the district finance office. There is only one health worker -- a health assistant -- who actively works in the clinic. The other health assistant had been ill for more than a year.

In Dollo Bay, there is a clinic built by MSF/Holland but during the time of visit, the clinic was closed due to lack of drugs. The health assistant who had been working there was transferred to Hergelle clinic and there is only one community health worker in the clinic currently.

All the health institutions have no vehicles or motor cycle. The Hergelle clinic used to have one motor cycle but it recently became non-functional.

The health delivery system is not well coordinated in all the health institutions. No integration of services was observed. The majority of the observed health institutions are currently not supporting health activities.

The ZHD has 11 administrative workers and in each health institution, there are 2 guards and 1 cleaner. The budget allocated to the different health institution is not known to the heads of the institutions and to the acting head of the ZHD.

Overall, all the health institutions in Afder zone lack basic planning. Health workers in each health institution lack the managerial capacity to properly plan their yearly activity. There have been attempts to train health managers but planning, monitoring, supervision, and evaluation of health programs are almost non-existent.

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## *5.2 Health Status*

The major causes of morbidity and mortality seen in Afder Zone are commonly found in developing nations and tropical climates (Table 3). Tuberculosis ranks first as a major cause of morbidity. In terms of mortality, malaria stands first. More than fifty percent of the prevalent diseases are communicable.

A related problem in the Zone is malnutrition. Surveys conducted in different towns of the Zone highlight this problem. According to the surveys, in Afder Zone, under 80% Weight/Height figures range from 20-40%. Poor nutritional status predisposes populations to different communicable disease, especially tuberculosis and diarrheal diseases.

A region wide survey conducted by ECA revealed the IMR of SNRS to be 196.6 per 1,000 live births, which is much higher than the national average, i.e. 105 per 1,000 live births. This high figure is a reflection of the higher magnitude of childhood diseases. The high IMR is a direct consequence of poor EPI status in the Zone.

The crude birth rate (CBR) of sampled households in the region was 36.38 per 1,000 and the crude death rate (CDR) is 24 per 1,000 population (7). The general fertility rate was 107 for 1,000 women in the reproductive age group (15-49) and total fertility rate was 3.904. All the figures indicated by the survey are lower than the national average.

The vaccination coverage of the Zone is desperately low. The cold chain was maintained for four months in five of the health institutions. During the time when the cold chain was maintained, the BCG coverage was 12.3 %, TT-2 coverage for pregnant women was 0.94% and TT-2 coverage for non-pregnant women was 1.6 %. Vitamin A supplementation was given for 3,286 children. There were two Polio campaigns in November and January of the year 1999/2000, which covered 72,186 children. A measles campaign was conducted in August 2000 , which covered 50,321 children. The actual number of children who are reported to get measles and polio vaccines are greater than the total number of under 2 children who are living in the Zone. The percentage of measles and polio vaccine coverage based on the report given by the ZHD is more than 100 %.

The potential health service coverage for the Zone is 22.7%, which is much lower than the national average of 45%. The actual health service coverage will be much lower than the potential health service coverage.[4]

There is a serious shortage of health professionals. In the zone, no medical doctor is available. Lack of qualified professionals has reduced the ability to diagnose and manage diseases like TB.

The annual budget allocated for all the clinics is 182,755.00 Eth. Birr, which covers running costs and salaries. The budget allocated for drugs for each clinic is 20,000 Eth. Birr. The Cheretti Health Center has an annual budget of 177,490.10 with an additional budget of 30,000.00 Birr for drugs. The per capita health expenditure is 1.38 Eth. Birr/person/year or 0.17 USD/person/year. Most health institutions do not report back to the RHB on their budget utilization. There is no monitoring and supervision by the ZHD or RHB to the health institutions to ensure proper financial management.

The existing Health Information Management System of the Zone is very poor. Records on the performance of the health institutions are not properly kept; if they are the records are very incomplete and erratic. Health professionals do not appear to appreciate the importance of Health Information Management.

Pastoralists generally lack access to the modern health services because of their isolation from the main stream National Development Programs. The limited health facilities in rural areas are mainly located among settled populations. Attempts to address the health service need of pastoralists have been limited by their migratory lifestyles. As such, a mobile health care system needs to introduced in pastoralist communities. Sustainable systems of providing health services to pastoral nomadic populations require a research-oriented approach.

[4] Potential health service coverage is an estimation of the population within a walking distance of 10-12 km radius of a health station or a clinic, which is potentially capable of providing service for the above population.

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**Table 2: The 10 top diseases seen in all the health institutions of Afder Zone (from July1999-December 1999).**

| Diseases | No of cases | % |
|---|---|---|
| TB of all forms | 945 | 18.4 |
| Pneumonia | 848 | 16.5 |
| Malaria | 720 | 14.2 |
| Anemia | 545 | 10.6 |
| Amoebiasis | 505 | 9.8 |
| Gastritis | 492 | 9.6 |
| Diarrheal diseases | 350 | 6.8 |
| Tonsillitis | 291 | 5.7 |
| STD | 243 | 4.7 |
| Eye problems | 196 | 3.8 |
| **Total no of cases** | **5,134** | **100%** |

Source: Annual Report of Health institutions ,Jijiga Regional Health Bureau.

**Table 3: Distribution of Deaths by sex and cause of Afder zone (in numbers)**

| Cause of death | Both Sexes | Male | Female |
|---|---|---|---|
| Malaria | 7 | 3 | 4 |
| ARI | 3 | 2 | 1 |
| TB | 3 | 2 | 1 |
| Vomiting/Diarrhea | 1 | 1 | 0 |

Source: UNECA survey, 1997.

**Table 4: Distribution and type of health professional in Afder zone.**

| Health Professionals | Standard | No required |
|---|---|---|
| Medical Doctor | 1:10,000 | 38 |
| Clinical Nurse | 1:5,000 | 70 |
| Mid wife Nurse | ,, | ,, |
| Public Health Nurse | ,, | ,, |
| Junior Nurse | ,, | ,, |
| Health Assistant | ,, | ,, |
| Laboratory technician | | |

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**Table 5: Distribution of Health institutions by District and Type**

| District | Health institution | No | State |
|---|---|---|---|
| Hergelle | Hospital<br>Clinic | 1<br>2 | Unstaffed,<br>Unequipped<br>Functional |
| Cheretti | Health Center | 1 | Functional |
| El kere | Health Center | 1 | non-functional |
| Bare | Clinic | 1 | Functional |
| Dollo bay | Clinic | 1 | Functional |
| Goro Bekeksa | Clinic | 1 | non-functional |
| Goreda Mole | Clinic | 1 | Functional |
| West Imi | Clinic | 1 | functional |

**Table 6: Response of Households on the major on the major problems associated with getting health service.**

| Response | Health Service | |
|---|---|---|
| | No | % |
| Absence of health Institutions | 1,422 | 84.2 |
| Lack of trained manpower and Other facilities | 149 | 8.8 |
| Lack of transportation facilities | 53 | 3.1 |
| Lack of Money | 41 | 2.4 |
| Lack of awareness towards health | 12 | 0.7 |
| Not stated | 12 | 0.7 |
| **Total** | **1,689** | **100.0** |

Source: UNECA survey, 1997.

## *Results of FGD*

| No | Leading Topic for discussion | Bare District | Cheretti District |
|---|---|---|---|
| 1. | What are the major health Problems in your area? | TB<br>Malaria<br>Malnutrition<br>Delivery Problems | TB<br>Bilharziasis |

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| | | | |
|---|---|---|---|
| | | Diarrhea/Vomiting in Under 5 | |
| 2. | Could you put the Problems in order of importance? | TB<br>Malnutrition<br>Delivery complication | TB<br>Malnutrition<br>Malaria<br>Bilharziasis<br>Delivery Problems |
| 3. | How are the health Institutions functioning in your District | Lack of drug supplies<br>No services like EPI | Lack of drugs |
| 4. | In cases when there is difficult Medical problems, what alternative do you use? | To Mendera Hospital in Kenya<br>Traditional Medicine | To Negelle Hospital in region 4 |
| 5. | Where do mothers deliver? | At home by TBAs | At home by TBAs |
| 6. | Do you support family planning? | It is against our religion | It is against our religion |

During in depth interviews, health workers disclosed the absence of most health service programs like EPI, FP/ANC, and under 5 clinics. The reason given by the health workers was lack of managerial skills by health workers, absence of support from RHB or other NGOs, and lack of maintenance service for refrigerators (used for storing drugs).

# 6. Assessment of the implementation of PHC programs

## *6.1 Health education*

In most of health institutions in Afder zone, health education is not provided. In a few clinics, health education is given irregularly. Training is mainly through lectures; no audiovisual aides and other learning materials are available. There are no health workers or community health workers who have taken any training in conducting health education. It is clear that the information, education, and communication activity in the Zone is very poor.

Some of the problems identified in health education are:

- absence of properly planned and regular health education
- lack of health workers or CHWs with basic training in IEC
- lack of teaching aides

## *6.2. Promotion of food supply and proper nutrition*

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In areas with continued surveillance activities, malnutrition figures have more than doubled over the past year. Malnutrition shown by these figures is superimposed on severe chronic malnutrition, as evidenced by the high number of stunted children during the assessment.

**Table7: Nutritional Survey of children in Afder Zone April 2000.**

| Site | # children surveyed | <70% weight/ height | <80% weight/ height |
|---|---|---|---|
| Hergele | 117 | 0.9 | 30.8 |
| Bare | 74 | 4.1 | 27.0 |
| Cheretti | 125 | 6.4 | 40.8 |
| Gorobekeksa | 58 | - | 20.3 |
| Gurada Mole | 100 | - | 21.0 |
| **Total** | **474** | **2.5** | **30.0** |

Source: PCAE survey, 1999

**Table 8: Nutritional Surveillance in Dollo bay**

| Site/Area | Date | *No of Children Surveyed* | <70% W/h | <80% W/H |
|---|---|---|---|---|
| Dollo bay | January 2000 | 500 | 1.6 % | 17.4% |

Source: PCAE surveillance report, 2000.

Nutritional Surveillance figures showed an increasing trend in malnutrition over the past 5 months. For the past consecutive three years, the rains have been erratic and scarce which resulted in the 2000 drought. In all the health institutions, there is no growth monitoring being conducted.

The problems observed in the promotion of food supply and proper nutrition are:

- Lack of appropriate food basket with special need for feeding center for supplementary feeding for already malnourished children.
- recurrent drought
- a marked and increasing incidence of malnutrition especially among children and the elderly
- following the rains, an increasing incidence of diarrhea and the likelihood of malaria further aggravate the problem

## *6.3. Adequate supply of safe water and sanitation*

Rains usually provide temporary relief with respect to the water supply in Afder Zone. Because of the recent rains, ponds are filled, wells replenished and traditional hand dug wells are operating. In many areas the water that is consumed especially from ponds and shallow

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wells is of poor quality since animal dung, feces and other pollutants have been washed into these sources. There is no water being treated in the Zone. According to the survey done in the Zone, 89.9 % of the population do not use latrines, and only 7.0% use pit latrine (5).

Furthermore, the fact that 56.7% and 51.6% of households surveyed use wells and ponds as their source of water during dry and wet seasons respectively shows that there is a severe shortage of potable water in the Zone. This situation is compounded even more by the fact that 83.3 % of the households share their water source with animals.

Among the reasons for the poor sanitation and consumption of unsafe water were:

- limited multi-sectoral efforts of the different offices in the Zone
- low supervision & logistic support of health institutions from ZHD&RHB
- low interest of development offices in the protection of water sources and construction of pit latrine through community mobilization

## *6.4. Maternal and Child Health including Family Planning*

MCH/FP is a comprehensive service which includes antenatal and postnatal care, under five clinic, and family planning. None of the health institutions in Afder Zone provide MCH/FP service as an organized and coordinated program. There is one Mid wife Nurse in the Hergelle clinic. In the other health institutions there is no health professional with special training in MCH/FP.

In the observed health institutions of Hergelle, Afder (Godosbo), Bare, Dollo bay, Chereti, and El kere, there were a limited number of clients of MCH/FP over the year 1998/99. Among the very few clients who appeared in the clinic, the proportion of Somali women is negligible. In the focus group discussion conducted, many of the participants reflected that practicing family planning is against the Moslem religious custom. According to the discussants, "as far as Allah gives children, there should not be any restriction of births".

Even if a Moslem woman wants to restrict the number of pregnancies, she would face objection from her husband and the community at large. A woman is discouraged from using any FP service. There is also a widespread misconception that the contraceptive pills would cause permanent sterility. In the Zone, there are no trained community based reproductive health agents.

In all the health institutions, there are no separate under-five clinics apart from the adult clinics. There is no growth monitoring and nutritional surveillance undertaken in the health institutions

Traditional birth attendants are more accepted than the formal health workers for delivery attendance. In the Hergelle town there are three trained TBAs. Each of the traditional birth attendants attend an average of 10 deliveries each month. In Bare town, there are 12 TBAs out of which 2 have taken formal training for 3 months by MSF/Holland. All the TBAs are currently actively working but they are not getting support in replenishing delivery kits and

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their service is not integrated with the existing health system. The equipment for the MCH services is not sufficient and contraceptive pills are often expired and under-utilized.

Some of the reasons which have contributed for the low utilization of the service, include:

- very few trained people to conduct the service
- limited capacity to organize MCH/FP programs
- poor support to the TBAs in terms of logistics and training
- religious beliefs and peoples' acceptance of the service
- lack of equipment

## *6.5. Immunization*

Expanded program on immunization (EPI) services are not well established in the Zone. There is no cold chain system currently in all of the health institutions. In the year 1992 EC, the cold chain was maintained only for 4 months in 5 health institutions namely in Hergelle Clinic, Cheretti Health Center, El kere Health Center, Bare Clinic, and Dollo bay Clinic. The refrigerators in all the visited health institutions are non-functional with the exception of Hergelle Clinic.

According to the ZHD, vaccine supplies in most health institutions are inadequate. The number of children who received vaccination in the routine EPI service is shown in Table 9. There were two polio vaccination campaigns in the year 1999 G.C. conducted in November and January. The measles vaccination campaign took place in August 2000.

**Table 9: Vaccination coverage of Afder Zone**

| Vaccination | | % |
|---|---|---|
| BCG | | 12.3 |
| Polio | | 100 |
| Measles | | 100 |
| TT-2 | Pregnant | 0.94 |
| | Non-Pregnant | 1.6 |

Source: ZHD, Afder

There is one EPI coordinator, a Junior Nurse, stationed in Hergelle Clinic. The EPI coordinator has taken a few weeks training on the basics of EPI. In the other health institutions, there is no focal person responsible for the EPI program. All the Clinics and Health Centers have no outreach sites.

No cars or motor cycles have been allocated to run the EPI program. The financial and logistical support by the RHB and other donor organizations is totally absent.

Problems identified in the EPI programs are:

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- Inability to maintain cold chain due to non-functional refrigerators
- Lack of trained health workers with regard to EPI
- Shortage of transport facilities
- No integration of the program with other services like MCH/FP
- Poor community mobilization efforts

## *6.6 Prevention and control of locally endemic diseases*

Locally endemic diseases in the Zone include tuberculosis, malaria, diarrhea, and schistosomiasis. Malaria is one of the killing diseases in the Zone. The survey result showed that of all the deaths malaria accounted for 50%. Formerly there was an organized malaria control program. Even though the malaria control unit is said to exist within the ZHD, the activity the unit currently undertakes is DDT spray in only two places.[5] The DDT spray is conducted once or twice in a year. The malaria surveillance system has been totally abandoned. In the health institutions, the control programs are literally non-existent with poor preventive activities and poor community mobilization efforts in times of malaria epidemics.

Tuberculosis is the other endemic disease with grave consequences. This deadly disease accounts for more than 20% of all the deaths in the Zone. In all the health institutions, the Acid Fast Bacilli test, which is a simple and gold standard diagnostic means, is not available. Suspected Tuberculosis patients are referred to Borena Hospital in Region 4 or to Mendera Hospital in Kenya for those who are living near the border areas like Dollo bay and Bare. The referral centers are several days journey, with poor public transportation and difficult roads. Even after the TB patients are started on anti-TB treatment in referral Hospitals, there are no anti-TB drugs for the continuation of treatment. The defaulting of treatment has a negative implication for the spread of the disease in the community. In the face of poor diagnostic and treatment centers, Tuberculosis continues to be the major cause of morbidity and mortality.

Diarrheal diseases are also among the endemic diseases in the Zone. The lack of safe water and basic sanitation contributes greatly to the rampancy of these diseases. During the rainy seasons, flooding is very common and as a result springs, ponds, wells and rivers are easily contaminated. Diarrheal outbreaks are common following the rains. In the dry seasons, there is also scarcity of water with resultant gastroenteritis. The supply of antibiotics, anti-helmithics and ORS in the health institutions is very scarce.

Some of the problems identified are:

- very poor malaria control activity
- absence of diagnostic and treatment center for TB
- lack of drug supplies for all the endemic diseases
- lack of expertise on the control of endemic diseases
- poor community mobilization in sensitizing the community about endemic diseases

[5] These areas include Hergelle town and Lebishilinde, located about 45 km from Hergelle town. These areas are prone to malaria epidemics.

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➢ poor follow up and referral system of patients

## *6.7. Treatment of common illnesses and injuries*

The common illnesses and injuries in the area are acute respiratory infections, helmenthiasis, birth complications, and wounds (mostly from gunshots and tribal conflicts.) As most health institutions are poorly organized, the capacity to handle this common illnesses and injuries is very poor.

## *6.8. Provision of essential drugs*

The provision of adequate and essential drugs in the Zone is not reliable. Drugs and medical equipment are procured from the Regional Health Bureau. There is no direct road communication between the Zone and the capital of the region, Jijiga, and for this reason drugs do not reach health institutions on a timely basis.

Drugs provided by the RHB do not correspond to the distribution of diseases in the Zone. There is no Pharmacist in the ZHD. Recently, a Junior Nurse was assigned to work as a pharmacist. The ZHD uses the drug store of the newly built Hergelle Hospital's store. Drug stocks and records are not properly taken. The Zone do not follow the ' first in first out' principle in drug management. A number of drugs have expired due to mismanagement.

The drug budget allocated for the Zone is not known by the zonal administration. Officials from the drug administration reported that health institutions often run without drugs for half a year every year. This has been the trend for the past many years. In all the health institutions visited, there is no proper drug storage. Drugs are stored with non-functional furniture and equipment. In all of the health institutions, there is no health worker trained in proper drug management. None of the health institutions practice proper drug recording.

The problems identified in the provision of essential drugs include:

- drugs are provided to health institutions without considering the local disease pattern
- poor drug inventory
- Lack of monitoring and supervision
- Minimal attempt to train health workers to update their knowledge and skill in the management of drugs
- Lack of knowledge about the essential drug list

## *6.9. HIV /AIDS*

HIV/AIDS is a global and national problem. In Afder Zone there is absolutely no attempt directed at controlling this deadly disease. The magnitude of the problem is not known and so far no strategy has been devised to combat the problem. The Focus Group Discussions and in-

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depth interviews disclosed that the communities have very minimal knowledge about HIV/AIDS and the ways of transmission of the disease.

The problems identified with respect to HIV/AIDS are:

- Lack of awareness of the problem
- No organized effort by health institutions or other groups to tackle the problem
- The magnitude of the problem remains to be unknown
- Religious opposition against the use of condom

## 7. Identification of Health and Health-Related problems in the Zone

A review of available health institution records, survey reports of different NGOs, FGDs, in-depth interviews and site visits identified various problems. Many of the problems are inter-related. They include the following:

- Poor organization and coordination of health services
- Weak community health services
  Absent EPI services
  Absent MCH/FP services
- Minimal and ineffective attempt to raise the awareness of the community about health issues
- Predominance of preventable and controllable diseases like Diarrheal diseases, Malaria, Tuberculosis and Helmenthiasis
- Shortage of safe water
- Poor sanitation
- Malnutrition
- Inappropriate provision of essential drugs
- Lack of continuing medical education for health workers
- Weak inter-sectoral linkages in dealing with health and health-related problems
- HIV/AIDS

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## 8.Prioritization

Prioritization of the problems identified above is needed in order to focus on specific problems given limited financial, material and human resources. By and large, the magnitude of the problem, its severity, community perspectives, and feasibility (technical as well as economical) was considered in the prioritization process. Among the problems listed above, the following should be addressed within the five year plan:

1. Low immunization coverage
2. Low MCH/FP coverage
3. Diarrheal diseases particularly among the under fives

4. Lack of safe water and poor sanitation
5. Tuberculosis
6. HIV/AIDS

The rationale for giving priority to these problems is provided below:

- Low immunization coverage

The immunization service as has been pointed out is very poor and has led to higher incidence and prevalence of preventable diseases such as Measles, Neonatal Tetanus, Diphtheria, TB, Pertussis and poliomyelitis. The cost of the vaccine administered to prevent one child is cheaper compared to the cost required to treat a case, which requires intensive hospital care. In the Zone, the possibility of receiving a hospital care is nil even though the physical construction of the Hospital was completed over a year ago.

Measles is persistent problem in the Zone. It is preferable to prevent these types of diseases through vaccination rather than treating cases. The cost for vaccine is much lower than case treatment which is usually complicated and less effective. Vaccines are 90% effective if the cold chain is maintained properly.

- Low MCH/FP coverage

A negligible number of women have made a first visit ante-natal check-up and received FP services. Low ANC and FP coverage undoubtedly has lead to a higher maternal mortality rate as disclosed in the in-depth interview with the TBAs in Hergelle town. The effectiveness of a quality MCH/FP service in reducing maternal mortality is a well-established fact. The cost of the program is relatively cheaper as compared to the human value lost due to lack of the service.

- Diarrheal diseases

If not treated promptly, acute diarrheal disease is one of the leading causes of morbidity and mortality. This problem is further compounded when combined with malnutrition, which forms a vicious circle. Diarrhea predisposes to malnutrition and malnutrition predisposes diarrheal diseases. Due to the drought, malnutrition has become rampant in Afder Zone. The provision of safe and adequate water is very poor, which further increases the prevalence of acute diarrheal diseases.

The high mortality associated with diarrhea can be prevented by the provision of clean water. Diarrheal diseases are life threatening because of dehydration, which can be prevented and treated by ORS and does not require a sophisticated technology. It is also more economically feasible than hospital care.

- Lack of safe water and poor sanitation

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As mentioned in the background section, this problem has a high magnitude. A majority of the people in Afder Zone get unsafe water and do not use pit latrines. To alleviate this problem, a huge amount of resources is required. A lot can be achieved through health education and community mobilization. Scarcity of water is one of the major reasons people move from place to place. The provision of safe and adequate water will have a double advantage of decreasing water-borne and water-washed diseases while helping people to lead more settled lives.

- Tuberculosis

Tuberculosis is the third common cause of morbidity as evidenced in the survey yet there are no TB diagnostic and treatment centers in all of the health institutions. Tuberculosis, by virtue of its nature, is communicable and can cause long-term disability. The way of life of the Somali People favors the transmission of TB. For instance, the average number of people living in a household is 7. Traditional huts are very small and tend to be crowded. Malnutrition, which is a chronic problem in the zone, also creates a conducive condition for the flare up of TB.

The expenditure for TB treatment is much lower when compared to the cost spent on treating cases at a hospital set up. In addition, it is technically feasible to start TB clinics in existing health institutions.

- HIV/AIDS

Ethiopia is one of the Sub-Saharan countries with the fastest transmission of HIV/AIDS. The different regions of the country contribute their own share to the problem. No studies have been carried out to indicate the magnitude of the problem in the SNRS but it is clear that the region cannot be an exception to this nationwide problem.

HIV /AIDS predisposes patients to acquisition of TB. The high prevalence of TB may indirectly imply the high prevalence HIV/AIDS. The low awareness of the community about the problem specifically puts them at high risk of acquiring the disease. Given these reasons, a control measure should be launched immediately.

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# 9. Health Action Plan of Afder Zone of the SNRS

In Afder Zone, most of the prevailing health problems are due to preventable diseases and malnutrition. While efforts have begun, present attempts to alleviate these problems have been less than optimal. This has happened due to not only poor program management and the demand for resources to support curative services but also because of an absence of base line health status indicators that would allow relevant and appropriate objectives and targets to be set for each health unit and activity. This health profile has been conducted to fill the gap and to assist in the development of a five year action plan.

The main health and health related problems in Afder zone, as described above, all fall under the essential elements of PHC. These essential components include:

- Expansion of immunization and MCH/FP, which will increase coverage and bring down the morbidity and mortality associated with low coverage
- Reduction of the number of people consuming unsafe water and improvement of poor sanitation
- Control of locally endemic diseases particularly Malaria, TB and control the HIV AIDS

The action plan should address these components and provide a detailed operational plan of the first year. The following section attempts to do exactly that.

## *Goals*

- To improve the health status of children under-five years of age through strengthening immunization activities, provision of ORS, and growth monitoring services in all the health units
- To reduce the risks associated with pregnancy by expansion of MCH/FP Antenatal Care services in all health units and strengthening of MCH services in all health units
- To improve the environmental sanitation and reduce water-borne diseases.
- To control locally endemic diseases, especially TB and Malaria
- To establish HIV/AIDS control measure

## *Strategies*

- Strengthening of the Zonal health Department
- Establishments of health posts particularly in rural areas through community involvement with training and staffing of CHWs (TBAS and CHAs)
- Distribution of ORS, training on ORT preparation and improvement of basic sanitation so as to decrease the burden of Diarrheal diseases and cut down deaths from Diarrheal disease
- Increase static and outreach sites for immunization in health institutions by conducting community based mass IEC activities on FP, EPI, ANC, HIV/AIDS
- Increase and strengthen health units rendering basic services and by training staffs to offer integrated service
- Training of Community Based Reproductive Health Agent (CBDRHA) to facilitate community based FP contraceptive distribution
- Development of water sources, protection of water sources and construction of pit latrines by mobilizing the communities
- Initiate a TB diagnostic center in the Hergelle Hospital and initiate TB clinics in all the health institutions and support ongoing supervision

## *Specific Objectives*

The following objectives could be achieved in the five-year plan:

1. Establish 16 Health Posts, 2 in each district. Posts should be staffed by one CHA and one TBA each
2. Upgrade 3 clinics to health Center and strengthen the already existing Health Center

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3. Train 16 CHAs and 16 TBAs on health education, growth monitoring, gender issues, environmental sanitation, community mobilization for immunization and ante Natal services
4. Train 50 CBDRHAs
5. Increase the immunization coverage from 0 to 70% among children under two years of age and pregnant mothers from 0 to 50%
6. Enable 50% of the women in child bearing age to become family planning clients
7. Increase the number of deliveries attended by health workers and trained traditional birth attendant from 0 to 30%
8. Develop 24 wells and to protect 50 springs
9. Enable 40% of the house holds posses pit latrine
10. Start TB clinic in all the health institution in the Zone
11. Equip and staff the Hergelle Hospital

## *Targets*

The following targets could be attained with in the first year period.

- Establish 3 Health Posts, one in Gorbo Bekeksa, one in Bare district and one in West Imi district
- Train 6 CHAs (3CHAs and 3 TBAs) from respective areas
- Train 10 CBDRHAs from the areas where the Health Posts are going to be established
- Increase immunization coverage among children under two years of age and pregnant women from 0 to 10% and 5% respectively
- Enable 15% of the women in the child bearing age group to become clients of family planning services
- Increase the number of deliveries attended by health workers
- Increase the number of trained TBAs from 0 to 6%
- Develop 6 wells and protect 6 springs
- Encourage construction of 100 pit latrines
- Start TB clinics in 3 health institutions (Hergelle Clinic, Cheretti Health Center and Bare Clinic)
- Maintain 8 supervisory visits to the health units and the communities
- Equip and staff the newly built Hospital

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## Monitoring and Evaluation:

Monitoring will be done by checking performance every month and by assessing the monthly reports of the responsible health units. In addition there will be a continuous supervision by the zonal health department. The evaluation is going to depend on whether the performance indicators are achieved or not.

**Activities and Tasks Involved in the First Year of the Action Plan**

| S.No | Activities | Task Involved | Responsibility |
|---|---|---|---|
| 1 | Establishment of three health posts<br>One in Goro Bekeksa<br>One in Bare district<br>One in West Imi | 1.1 Hold meetings with community leaders of<br>1.2 Respective areas<br>1.3 Hold meetings with DDOs, NGOs in the Zone and region<br>1.4 Construction of three health posts | ZHD<br>DDOs<br>in the<br>respective<br>districts |
| 2 | Equip and staff the Hergelle Hospital | 2.1 Discuss with regional health bureau (RHB)<br>2.2 Hold meetings with NGOs in the region<br>2.3 Equipping and staffing the Hospital | ZHD |
| 3 | Training of six CHWs (Three TBAs and three CHAs) and CBDRHAs | 3.1 Develop an agreed way of electing the CHWs for training and means of support<br>3.2 Arrange time and place of training<br>3.3 Election of trainees<br>3.4 Conduct training | ZHD |
| 4 | Immunization of children under two Years of age and pregnant women | 4.1 Train eight health assistant from each health unit using EPI Module for one week<br>4.2 Maintain the cold chain in the already existing health institutions<br>4.3 Maintain the non functional refrigerators<br>4.4 Open eight out reach clinic for each district<br>4.5 Secure vaccine supplies, logistics and financial support | ZHD |
| 5 | Strengthening of MCH services Including F/P | 5.1 Train seven HAs on techniques of AN check-ups growth monitoring treatment of common diseases in pregnant women, F/P, high risk Pregnancy identification and referral system for two weeks<br>5.2 Set-up MCH /F/P on daily basis in the existing Health institution in the Zone.<br>5.3 Start growth monitoring using MUAC strip in | ZHD<br>ZHD |

ZHD

| | | | |
|---|---|---|---|
| | | all Existing health unit<br>5.4 Disseminate information on the availability and use of the service through CHWs<br>5.5 Management of 6% of deliveries by health workers and trained TBAs<br>5.6 Train 20 CBDRHAs | Health Workers<br>CHWs<br>Health Workers & CHWs<br>ZHD & DDOs |
| 6 | Develop six wells and protect four Springs, construction of 100 pit Latrines. | 6.1 Preparation and selection of sites four wells, springs and latrines.<br>6.2 health education on the importance and use of safe water and latrines.<br>6.3 train six CHAs on the maintain of springs for a day.<br>6.4 Community mobilization to organize human labor and material.<br>6.5Construction of wells, springs and 100 latrines | ZHD<br>ZWB/RWB |
| 7 | Set-up TB Clinics in the existing health units | 7.1 Conduct on job training on early detection and treatment of TB for health workers to be involved in the TB clinic<br>7.2 Organize TB Clinics in all the health units | ZHD |

CHDA

**Time table of the activities to be accomplished in the first year plan period and Resources Required**

| Activities | Preparatory Phase | Quarter/ I Month 1 2 3 | Quarter /2 Month 4 5 6 | Quarter/3 Month 7 8 9 | Quarter/ 4 Month 10 11 12 |
|---|---|---|---|---|---|
| Hold meetings With community leaders | --------- | --- | | | |
| Hold discussion with NGOs, DDOs | --------- | --- | | | |
| Construction of 3 health posts | | ---------- | ---------- | | |
| Discussion with RHB | -------- | ---- | | | |
| Hold meetings with NGOs | -------- | ---- | | | |
| Equipping and staffing the Hospital | | ------- | ---------- | | |
| Training of 6 CHWs 20 CBDRHAs | | 5 ---------- 3 | 5 ---------- 3 | 5 ---------- | 5 ---------- |
| Train 8 Has on EPI management | | 8 HAs ------- | | | |
| Maintenance of Non-functional Refrigerators | | ----- | | | |
| OPEN 8 EPI Out reach sites | | 1 1 2 | 2 1 1 | | |
| Secure vaccine | | | | | |

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| | | | | | |
|---|---|---|---|---|---|
| supplies, logistics and financial support | -------- | | | | |
| Conduct mass EPI sensitization | | ---------- | | | |
| Train 7 Has on basic MCH/FP Activities | | ---------- | | | |
| Set up MCH/FP service on daily basis in the existing health units | | ---------- | | | |
| Start growth monitoring using MUAC strip | | ---------- | | | |
| Management of deliveries | | ---------- | ---------- | ---------- | ---------- |
| Training of 6 CHAs on maintenance of spring s and well | | | ---------- | | |
| Construction of 6 wells | | 1 1 1 | 1 1 1 | | |
| Construction of 4 springs | | 1 1 | 1 1 | | |
| Construction of 100 latrines | | 10 10 | 10 10 | 10 10 | 10 10 10 |

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| | | | | | |
|---|---|---|---|---|---|
| | | | 10 | 10 | |
| Conduct on-job training on early detection and treatment of TB for HA | | ---------- | | | |
| Organize TB clinic in the existing health institution | | ---------- | | | |

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| Activities | Resources Required | | Source of help |
|---|---|---|---|
| | Category | Source | |
| Construction of 3 Health Posts<br><br>Equipping and staffing of Hergelle Hospital<br><br>Training of 6 CHWs and 20 CBDRHAs | Manpower, Stone, tree, corrugated iron sheet, nails and basic drugs<br>drug<br><br>Health professionals, medical equipment and drugs<br><br>Financial Support<br>Teaching Support | Community<br><br>revolving fund<br><br>MOH<br>RHB<br><br>ZHD<br>Community | ADC<br>SCF/USA<br>ICRC<br>SC/UK |
| Training of 8 HAs on EPI module | Financial Support<br>Teaching Support | NGOS<br>ZHD | UNICEF<br>ICRC |
| Maintenance of refrigerators | Technical Support<br>Financial Support | UNICEF | |
| Secure vaccine supplies, logistics and financial support | Vaccine Supplies<br>Cars, Motor Cycles and Kerosene | RHD<br>UNICEF | SCF/USA |
| Training of HAs on MCH/FP | Financial Support<br>Teaching Support | SCF/USA | UNICEF<br>RHB |
| Open 8 EPI outreach services | Vaccines<br>Vaccine Carrier | UNICEF | SCF/USA |
| Set up MCH/FP service | Teaching material<br>Financial Support<br>Examination equipment<br>Contraceptives | RHB<br>UNICEF | SCF/USA |
| Start growth monitoring | MUAC strips<br>Weight scales | ICRC<br><br>UNICEF | SCF/USA |

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