# Children and Women in Eritrea: 1996

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# An Update

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# Preface

This document is an Update of the Government of the State of Eritrea (GSE)/UNICEF Situation Analysis of Children and Women which was originally published in 1995. It is a synoptic version designed to distill and, where possible, bring up-to-date key data and analyses and make them more widely available to interested users in Eritrea and abroad. This initiative represents one component of a sustained effort by Government and UNICEF, in collaboration with other development partners, to generate and disseminate information on the status of children and women in the country. It has been designed not as an end in itself but as an instrument for bringing the concerns of children and women to the attention of decision-makers as well as spurring action to tackle the most pressing problems.

The knowledge captured within the pages which follow is the product of the exertions of a broad coalition of partners: various institutions of Government, UNICEF, the University of Asmara, other development partners and independent consultants.

The Government of the State of Eritrea and UNICEF thank all those involved in this enterprise for their contributions and jointly look forward to continuing such collaborative activities in the future.

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# Eritrea at a Glance

## Basic Data

| | |
|---|---|
| Total Population (resident) | 2.6 million (estimate) |
| Under-Five Mortality Rate | 136/1,000 live births |
| Infant Mortality Rate | 72/1,000 live births |
| Maternal Mortality Rate | 998/100,000 live births |
| Gross Domestic Product (GDP) Per Capita | US$ 140-163 |

## Health and Nutritional Status

| | |
|---|---|
| Principal Diseases | Diarrhoea, Malaria, Acute Respiratory Infections, Vaccine-Preventable Diseases, Protein Energy Malnutrition, Micronutrient Deficiencies |
| Children Fully Immunised | 41% |
| Access to Safe Water | 7% rural<br>44% urban |
| Access to Sanitation | <1% rural<br>12% urban |
| Moderate and Severe Stunting (under-threes) | 38% |
| Moderate and Severe Wasting (under-threes) | 16% |
| Low Weight-for-Age (under-threes) | 44% |
| Vitamin A Deficiency (under-ones) | 7% |
| Iron Deficiency Anaemia (under-ones) | 55% |
| Iodine Deficiency (school children, 9-11 years) | 82% |

## Educational Status

| | | |
|---|---|---|
| Adult Literacy Rate | 15 years+ | 15% |
| | Female | 10% |
| | Male | 20% |
| Primary School Enrolment Ratio* | Gross (all ages) | 52% |
| | Female | 47.5% |
| | Male | 57% |
| | Net (7-11yrs of age) | 29% |
| | Female | 28% |
| | Male | 30% |
| Secondary School Enrolment Ratio* | Gross (all ages) | 15.5% |
| | Female | 13% |
| | Male | 18% |
| | Net (14-17yrs of age) | 9% |
| | Female | 9% |
| | Male | 10% |

*The Ministry of Education used a planning figure for total population of 3.164 million in order to derive its enrolment ratios

## Demographic Indicators

| | | |
|---|---|---|
| Population Pyramid | | |
| | 0-4 | 18% |
| | 5-14 | 28% |
| | 15-44 | 39% |
| | 45-64 | 11% |
| | 65+ | 4% |
| Population Distribution | urban | 20% |
| | rural | 80% |
| Crude Birth Rate | 48/1,000 | |
| Crude Death Rate | 18/1,000 | |
| Total Fertility Rate | 6.1 | |
| Population Growth Rate | 3%/annum | |
| Population Doubling Time | 23 years | |
| Average Life Expectancy | 46 years | |

## Economic Indicators

| | | |
|---|---|---|
| GDP at Current Market Prices (1995) | Birr 3,905 million | |
| Composition of GDP (1995) | agriculture | 11% |
| | industry | 25% |
| | services | 65% |
| Exchange Rate (1996) | Birr 6.3/US$ | |

*Sources: MOE, MOH, MOLG, MLHW, MLW&E, NSO, UNICEF, IMF, World Bank; 1994-96*

# Eritrea: The Land and Its People

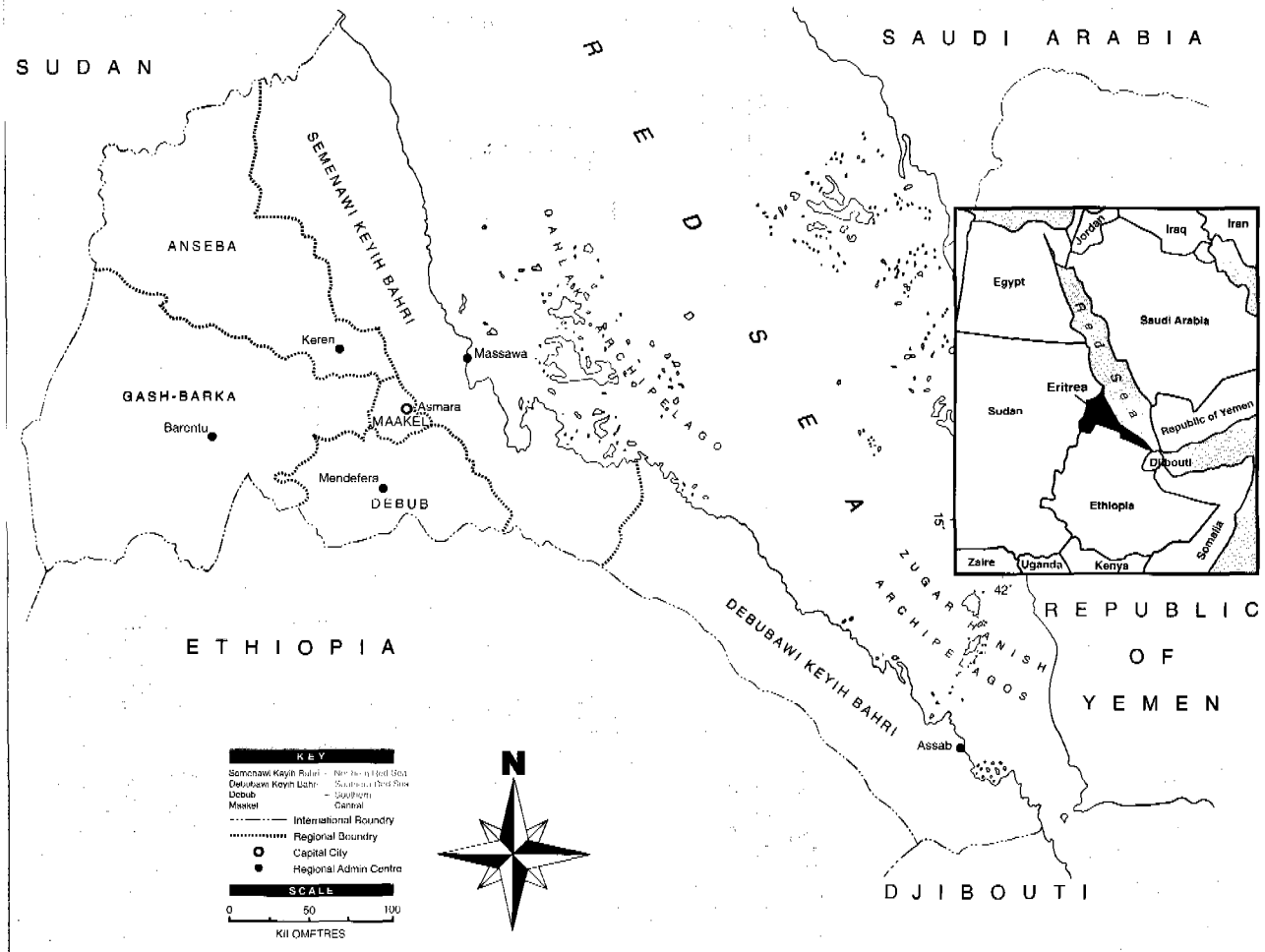
## The Land and Its Resources

Eritrea is located in the Horn of Africa due west, across the Red Sea, from the Arabian Peninsula (Saudi Arabia and Yemen; see map). Half of its approximately 2.6 million people live in the central highlands which rise 2,000 metres above sea level. Here, the climate is moderate, the land quite productive and communications infrastructure relatively well developed. The highlands taper off to desert and the Red Sea in the northeast and to plains bordering Sudan and Ethiopia in the southwest. These areas, where climatic conditions are more demanding and infrastructure limited, are home to semi-nomadic pastoralists.

With low rainfall, Eritrea's rivers flow intermittently. Only the Setit, on the Ethiopian border, is perennial. The Gash, flowing west to Sudan, appears at Tessenei during the rains. The Barka and Anseba run from the highlands north to Sudan, with waters visible only in their upper reaches. Many rivers are still to be fully harnessed. Sizeable flows of fresh water and fertile soil are lost every year.

Only 4 percent of Eritrea is farmed. Less than 0.2 percent is irrigated. With the exception of the highland "green belt" which enjoys two rainy seasons – and sometimes even there – agriculture is prone to drought and widespread crop failure. Most farming is concentrated in the highlands. The black "cotton" soils of the western plains have potential but are hard to work. Saline or shallow soils on the coastal plains support little farming. Eritrea's soils degraded as war raged, the population continued to increase, forests were cleared and grazing was expanded. Soil loss has been high and fertility has declined from overuse, making an "average" yield harder to achieve.

Eritrea is believed to have sizeable deposits of gold, barite, feldspar, and various base metals. Good quality marble and granite exist in large quantities. The Red Sea itself offers several opportunities: sizeable stocks of fish, the source for an expanding salt extraction industry and, possibly, oil and gas. To date, these natural resources have not been fully exploited although discussions are



underway with foreign companies to establish mining and oil concessions around the country. Agreements have already been reached in a number of cases.

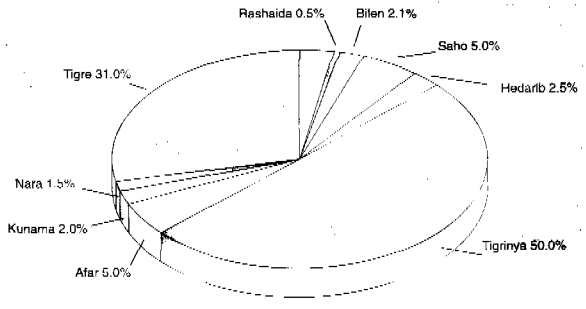
## The People

Eritreans are culturally and linguistically diverse. About 50 percent are Tigrinya, mostly highland farmers, and 31 percent are Tigre, mostly herders and mixed farmers in the north. The Saho (in Central and Northern Red Sea Regions) and the Afar (pastoralists in Southern Red Sea) number 5 percent each. The Hedarib (in Gash Barka), the Bilen (in Anseba), and the Kunama and Nara (in Gash-Barka) comprise about 2 percent each and the Rashaida (in Northern Red Sea) about 0.5 percent. These groups each have their own languages. Tigrinya and Arabic are the working languages; English and Italian are also widely used.

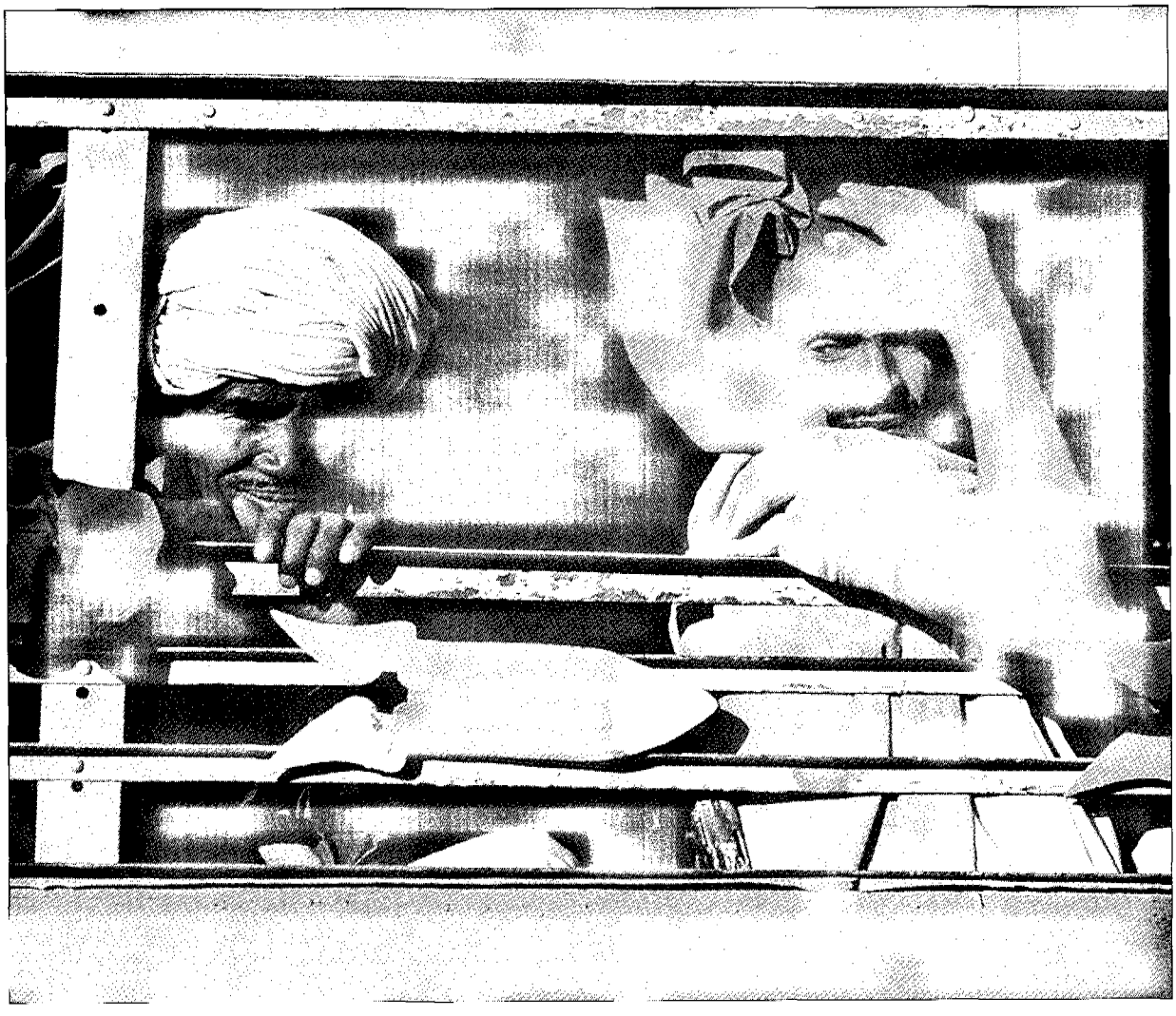
As a result of the war, as many as 1 million Eritreans live abroad - mostly in Sudan and in Ethiopia, but also in the Gulf, Europe and North America. Since 1991, about 125,000 refugees have returned, settling in Asmara or the regions bordering Sudan. Most Eritreans, 80 percent, live in rural areas. Of the remaining 20 percent who live in towns and cities, by far the largest concentration is in Asmara, the country's capital.

Fertility rates are high. Women have, on average, 6 children, with the result that Eritrea has a young population with high consumption needs. One in 2 people is a child under 18; 1 in 5 a child under five. With a population growth rate of about 3 percent per annum, the number of people in the country will double every 23 years.

### The Nine Major Ethnic Groups in Eritrea




*Source: Eritrean Relief and Refugee Commission (ERREC), 1994*



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# Eritrea in History

Located on an important sea route between Europe and Asia, Eritrea has often been occupied by foreign invaders. As long as 2000 years ago, Arabian Semites invaded the Nilotic and Kushitic peoples living there. They introduced new crops, animals, farming techniques, and the Sabean alphabet. Later, the great Axumite civilization was founded on the major trading centres in the area. As Axum declined, five Beja Kingdoms emerged. By 1500, the Bellou Kingdom controlled the Eritrean plateau and its rulers were strong enough to defend their capital, Debarua, from invaders. Its strength fell in the 1800s as a result of internal rivalry and intensive attacks from the Ottomans and Abyssinians.

Ottoman rule followed, exercised through the Egyptian Khedives. It aimed to control trade and collect taxes having, as a consequence, little impact on everyday life. Gradually, Egypt expanded into Eritrea. In 1865, the Turks left Massawa and the Khedives took control. Egyptian forces then moved into the highlands but before reaching Abyssinia, they were defeated in battles at Gundet (1875) and Gura (1876). With this, Egyptian expansion into Eritrea drew to a close.

## Eritrea Becomes an Italian Colony

When the scramble for Africa began in 1884, Italy was a serious contender. By 1882, it controlled Assab and by 1885, Massawa. From there, the Italians moved into the interior. On 1 January 1890, Eritrea was declared a colony of Italy with almost 70,000 Italians eventually settling there. Colonialism led to substantial land seizures. By 1907, 470,000 hectares were taken for Italian use and devoted to produce cash crops destined for European consumption. In addition, land belonging to the Coptic church was seized and made Crown land.

With their most productive land taken, Eritreans were forced to find work in Italian farms and industries where they were paid less than one-fifth what an Italian was paid. Eritrean men also entered the colonial army. Thousands went to Libya and Somalia on Italian campaigns; 70,000 were conscripted for Italy's war with Ethiopia.

On the positive side, the Italians built a 292 km railroad from Massawa through Asmara to Agordat. They also built 3,600 km of roadway. There was also significant modernisation of the local economy, particularly in agriculture and industry. Most importantly, however, the Italian occupation helped to forge the nation's identity. Eritrea's present boundaries were established by Italian administrators. Moreover, it was during the colonial period that Eritreans began to think of themselves as one nation which belonged to one land.

## The British Military Administration Takes Charge

In 1941, British forces defeated the Italians in Eritrea and a British Military Administration (BMA) was established. The British left most things unchanged, including the Italian bureaucracy and colonial patterns of ownership, but significantly expanded educational opportunities for Eritreans. In the immediate post-war period, however, the economy collapsed: industry declined, farms failed, unemployment soared, and arable land for Eritrean farmers grew even more scarce.

Out of these conditions came the first political stirring of the Eritrean people. Educated Eritreans, alienated from British and Italian administrators, formed an organized opposition. In the 1940s, they established political parties and published newspapers. Political turmoil and insecurity increased as Eritrea moved towards independence.

## Ethiopia Annexes Eritrea

In 1950, the United Nations federated Eritrea and Ethiopia. Although Eritrea was granted self-rule under Ethiopian "protection", Ethiopia controlled Eritrea's revenues, stationed its soldiers there and openly aimed to make Eritrea part of a greater Ethiopia. To this end, Eritrean government was reduced and opponents were replaced with "unionists". In 1962, Ethiopia unilaterally annexed Eritrea.

Ethiopia made every effort to suppress Eritrean identity, culture and tradition. Amharic became the official language. Books in Eritrean languages were destroyed. Eritrean nationalists were imprisoned or deported. Government positions were filled with Amharic-speaking Ethiopians who supervised the "Ethiopianization" of Eritrea.

## Eritrea Attains Independence

Eritrea's armed struggle for independence began in 1961. Ethiopia responded with harsh measures including mass arrests and widespread burning of villages. Nonetheless, Eritrean fighters defeated the Ethiopian forces in the 1970s, capturing weaponry and contributing to the Emperor's fall in 1974. By 1978, 90 percent of Eritrea and all but five towns had been liberated.

Unfortunately, the Soviet Union gave military support to the new Ethiopian regime, tipping the balance in its favour. Outgunned, Eritrean forces were pushed back to their northern stronghold. Between 1978 and 1988, Ethiopia launched eight offensives against the Eritrean forces. The sixth, "Red Star", was pivotal. It took place in 1982 and aimed to crush the Eritrean People's Liberation Front

(EPLF). Although the Ethiopian forces included Soviet troops and commanders, the EPLF succeeded in repelling the attack, inflicting many deaths and capturing large amounts of weaponry and troops.

In 1988, Ethiopia's army was again defeated, this time in Afabet. The Eritreans captured 18,000 Ethiopian troops and many armaments – including 80 tanks and five missile launchers. Two years later, Massawa was liberated, forcing Ethiopia to airlift supplies to Asmara. Finally, EPLF forces stormed Ethiopian defensive lines outside Asmara, regaining the city on 24 May, 1991

On 23-25 April 1993, in a United Nations supervised referendum held to determine Eritrea's political status, 98 percent of voters chose independence. On 24 May 1993, independence was formally declared. Eritrea became a member of the United Nations on 28 May 1993 and a member of the Organization of African Unity a few days later.

## Eritrea Today

As a consequence of war and occupation as well as natural disasters, Eritrea today is one of the world's poorest countries. Its gross domestic product (GDP) per capita is estimated to be US$ 140 to US$ 163. Its under five morality rate is 136 per 1,000 live births. Measles, diarrhoea, malaria and acute respiratory infections are common killers. Life expectancy at birth is 46 years. The adult literacy rate is only 15 percent. The gross primary school enrolment rate, though it has more than doubled since the war's end, is still just 52 percent. Access to safe drinking water and adequate sanitation is very low, particularly in rural areas. At the same time, the country must cope with the needs of 90,000 children who have lost one or both parents as a result of war. In addition, there is the demanding task of demobilising tens of thousands of fighters and re-integrating back into the country as many as half-a-million refugees currently living in the Sudan.

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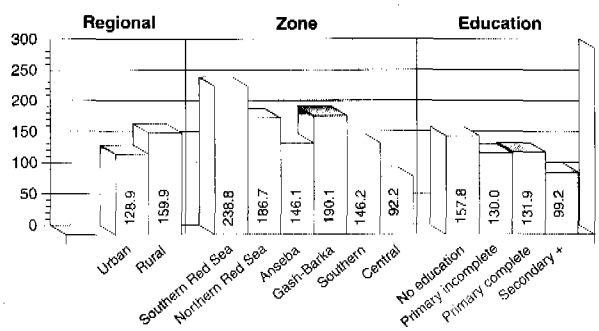
# Health for All

At the time of liberation in 1991, Eritrea was confronted by a particularly low level of social development compared to the rest of Sub-Saharan Africa. One of the major concerns was the poor health status of the population which was itself attributable to war-related devastation of essential infrastructure and services as well as colonial neglect and natural disasters. The severity of the problem was evident from high rates of death and illness due to preventable causes, especially among children and women. Over the past five years, however, the Government has not only recognised the implications of this situation for human well-being and economic development but also invested considerable resources in re-building infrastructure and improving the quality of health services, particularly primary health care or PHC. The information which follows below illustrates the progress made in the short period since liberation and the challenge which still remains to be tackled in the future.

## Death Rates are High

According to the Eritrea Demographic and Health Survey (EDHS, 1995), the infant mortality rate (IMR) and under-five mortality rate (U5MR) are 72 per 1,000 live births and 136 per 1,000 live births, respectively. Both rates vary by geographic location: the under-five mortality rate in rural areas, at 160 per 1,000 live births, is 24 percent higher than that in urban areas where it is 129 per 1,000 live births. In terms of regions, the U5MR ranges from a high of 239 per 1,000 live births in Southern Red Sea to between 187-190 per 1,000 live births in Northern Red Sea and Gash-Barka, 146 per 1,000 in Anseba and Southern followed, as expected, by a low of 92 per 1,000 live births in Central.

**Under Five Mortality Rates in Eritrea (per 1,000 live births) by Residence, Region and Education**




*Source: EDHS, 1995.*

The results of the EDHS also show that the risk of child death diminishes with increasing education of the mother: the U5MR for those children born to mothers with no education is 158 per 1,000 live births, decreasing to about 130 per 1,000 live births when the mother has either incomplete or complete primary education and 99 per 1,000 live births when she is educated to secondary or higher levels of education. On the other hand, the risk of death increases significantly for first and high order births (four or more), birth intervals less than two years and when the mother is very young or old (less than 18 years or more than 34 years of age).

The same survey reveals that the maternal mortality ratio (MMR), which measures deaths due to pregnancy-related causes, is much higher than originally estimated, at 998 per 100,000 live births. Eritrean women, therefore, face a significant possibility of dying during pregnancy and child birth while performing a function which benefits their families, communities and country, a classic case of imbalance between individual risk and social gain.

The significance of death rates lies in their ability to measure progress in improving the lives of children and women. They combine the effects of many distinct but inter-related factors contributing to quality of life. Child mortality, for instance, varies with the prevalence of disease and malnutrition, the quality of health services, the income and education of parents and, naturally, the health and socio-economic status of women. The latter factor together with the availability and quality of obstetric care affects maternal mortality. Finally, it is well worth remembering that behind the cold clarity of numbers lies the wreckage of personal, family and, indeed, social tragedy.

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## Using Oral Rehydration Therapy (ORT) to Treat Diarrhoea

The Eritrea Demographic and Health Survey (EDHS) asked mothers of each living child under three years of age whether any had suffered an episode of diarrhoea during the two weeks preceding the survey: they answered in the affirmative in almost a quarter of all cases (24 percent). Data from the EDHS also reveal that diarrhoeal prevalence is highest among children 6-11 months of age. As could be expected, the prevalence rate is also highest in rural compared to urban areas and among children of women with no education compared to those with some education. Regionally, the worst situation is in Southern Red Sea (39 percent) and the best in Anseba (15 percent).

**Prevalence of Diarrhoea**

Percentage of children under three years of age with diarrhoea and diarrhoea with blood during the two weeks preceding the survey, by selected background characteristics, Eritrea 1995.

| Background characteristic | Diarrhoea in the preceding 2 weeks: All diarrhoea | Diarrhoea with blood | Number of children |
|---|---|---|---|
| **Age of child** | | | |
| <6 months | 12.5 | 0.9 | 448 |
| 6-11 months | 34.2 | 9.2 | 430 |
| 12-23 months | 27.1 | 7.2 | 725 |
| 24-35 months | 21.0 | 6.6 | 821 |
| **Residence** | | | |
| Urban | 17.8 | 2.1 | 500 |
| Asmara | 15.9 | 1.1 | 266 |
| Other town | 19.9 | 3.3 | 233 |
| Rural | 25.1 | 7.2 | 1,925 |
| **Zone** | | | |
| Southern Red Sea | 39.1 | 8.9 | 59 |
| Northern Red Sea | 23.4 | 3.8 | 317 |
| Anseba | 15.0 | 1.7 | 314 |
| Gash-Barka | 29.7 | 8.6 | 461 |
| Southern | 26.1 | 9.6 | 841 |
| Central | 16.3 | 1.7 | 432 |
| **Mother's education** | | | |
| No education | 25.4 | 7.4 | 1,868 |
| Primary incomplete | 17.3 | 2.7 | 338 |
| Primary complete | 19.0 | 1.7 | 111 |
| Secondary+ | 15.4 | 1.3 | 107 |
| **Total** | 23.6 | 6.2 | 2,424 |

Source: EDHS, 1995.

Diarrhoea can be prevented by breastfeeding, proper weaning, washing hands, keeping water and food clean and immunising against measles. Children need not suffer 4 or 5 episodes of diarrhoea a year. When diarrhoea does occur, however, it need not lead to death. Most deaths from this disease result from dehydration which drains away the body's fluids. In 9 out of 10 cases, oral rehydration therapy (ORT) - giving plenty of fluids and continuing feeding - can prevent dehydration; in only 1 out of 10 cases is there any need to use antibiotics to treat dysentery.

The EDHS reports that among women with births in the three years prior to the survey, 64 percent know about sugar-salt-water solutions for treatment of diarrhoea. Slightly less than half (49 percent), however, would provide more liquids during an episode of diarrhoea compared to normal feeding practices while 42 percent would make available the same or more solid foods. While these figures are not high, they do represent a firm foundation upon which information and education on ORT can be undertaken in the population, especially targeted towards mothers. The importance of mobilising the people is reinforced by the gap between knowledge of diarrhoea care and actual treatment. The same survey estimates that among children who did have diarrhoea, only 38 percent had been given either oral rehydration salts (ORS) or a recommended home fluid (RHF), a slightly lower number (36 percent) had been provided with increased fluids and only 26 percent had been offered the same or increased solid foods.

**Treatment of Diarrhoea**

Among children under three years who had diarrhoea in the two weeks preceding the survey, the percentage taken for treatment to a health facility or provider, the percentage who received increased fluids and oral rehydration therapy (ORT), either an oral rehydration solution (ORS) or recommended home solution (RHS), according to selected background characteristics, Eritrea 1995.

| Background characteristic | Percentage taken to a health facility or provider[1] | Oral rehydration therapy: ORS packets | RHS at home[2] | Either ORS or RHS | Increased fluids |
|---|---|---|---|---|---|
| **Residence** | | | | | |
| Urban | 54.8 | 68.2 | 13.2 | 70.9 | 46.4 |
| Asmara | 51.7 | 74.1 | 15.5 | 75.9 | 48.3 |
| Other town | 57.6 | 62.7 | 11.1 | 66.3 | 44.6 |
| Rural | 23.5 | 26.3 | 10.6 | 31.4 | 34.6 |
| **Zone** | | | | | |
| Southern Red Sea | (24.9) | (40.7) | (18.3) | (45.3) | (18.3) |
| Northern Red Sea | 40.8 | 40.6 | 7.8 | 42.8 | 34.6 |
| Anseba | (18.8) | (26.8) | (6.9) | (26.8) | (20.0) |
| Gash-Barka | 25.8 | 26.7 | 20.7 | 34.0 | 40.5 |
| Southern | 22.5 | 25.3 | 4.8 | 28.5 | 36.8 |
| Central | 46.5 | 61.5 | 15.5 | 64.1 | 45.9 |
| **Mother's education** | | | | | |
| No education | 25.2 | 27.6 | 10.8 | 33.3 | 35.0 |
| Primary incomplete | 43.9 | 53.4 | 12.0 | 53.4 | 39.4 |
| Primary complete | (38.8) | (63.6) | (4.4) | (63.6) | (52.1) |
| **Total** | 28.4 | 32.8 | 11.0 | 37.6 | 36.4 |

Note: Total includes 18 children whose mother had secondary or higher education. Figures in parentheses are based on 12 to 49 children who had diarrhoea.
[1] Includes health center, hospital, clinic, and private doctor
[2] Homemade sugar, salt, water solution
Source: EDHS, 1995.

## Learning to Control Malaria

Malaria causes 20 percent of child admissions to hospitals and kills 7 percent of those admitted with it. It is also the leading reason for hospitalizing women. The disease is particularly dangerous to pregnant women because the foetus already makes special demands on a woman's body, drawing down nutrients and immunological defenses. It is endemic in the hot lowland areas where the malaria mosquito breeds.

Malaria can be controlled by using insecticide-impregnated bednets and clearing stagnant water where mosquitoes breed. Most Eritreans, 4 in 5, know that malaria can be treated with drugs, which are dispensed even by shopkeepers. But only 1 in 4 knows that malaria is a communicable disease and only 1 in 3 knows something about how modern science prevents it. Some traditional practices are helpful. For example, to repel malaria-causing insects, the Kunama place an aromatic plant (*agiddisha*) at the corners of their beds, many rural people sleep on well-ventilated lofts, and herdsmen often sleep in the middle of their herds with lighted fires for protection. Nonetheless, people need to learn more about controlling this disease.

## Preventing Deaths from Pneumonia

Estimates from the EDHS show that 23 percent of children under three years were ill with acute respiratory infections (ARI) during the 2 weeks preceding the survey. ARI also cause 44 percent of child admissions to hospitals. Although only 3 percent of these children later die from ARI, the high rate of infection makes ARI a leading killer of children. Pneumonia causes perhaps 70 percent of child deaths from ARI. It can usually be cured with a low-cost antibiotic. Immunizing a child against measles and whooping cough reduces the risk of pneumonia by 25 percent. If, in addition, parents learn to recognize symptoms (a cough or a cold and rapid or difficult breathing) and community health workers learn to make proper diagnoses, prescribe antibiotics, and refer emergency cases to health facilities, the incidence of pneumonia could fall sharply.

## Fighting the Six Vaccine-Preventable Diseases

With a simple thirty second procedure – a vaccination – measles, tetanus, tuberculosis, diphtheria, and whooping cough can be prevented. These are leading causes of child illness and death in Eritrea. In addition, polio, a crippler, can be eradicated. The expanded programme on child immunization (EPI) can be the "cutting edge" in Eritrea's effort to mobilize people towards health for all. The cost of EPI is low, but the impact is high.

A review of the EPI undertaken by the Ministry of Health in 1995, with assistance from UNICEF and WHO, estimated that only about 39 percent of children (12-23 months) were fully immunised. The EDHS, which was carried out later in the same year, reported a slightly higher rate of 41 percent. On the basis of the routine reporting system, it is expected that immunisation coverage could rise to about 60 percent by the end of 1997. Furthermore, National Immunisation Days (NIDs) were held in October and November, 1996, as part of the Polio Eradication Initiative with 74 percent of children under five receiving protection against this destructive disease. NIDs will be organised each year and will reach at least 80 percent of all children under five. They will also be used to provide vitamin A supplementation to children at high risk of suffering from vitamin A deficiency.

While child immunisation has improved, the percentage of women (of child-bearing age) with two or more doses of tetanus toxoid vaccination is still very low: the EDHS reports that only for 23 percent of births in the three years preceding the survey did mothers have two or more doses of the tetanus toxoid vaccination.

### Vaccination by Background Characteristics

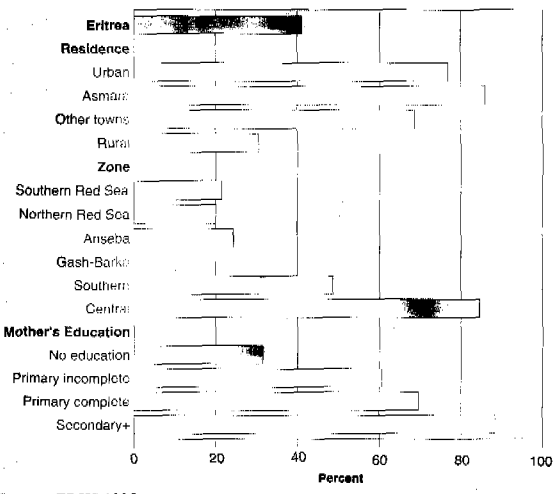
Percentage of children 12-23 months who had received specific vaccines by the time of the survey (according to the vaccination card or the mother's report), and the percentage with a vaccination card, according to selected background characteristics, Eritrea 1995.

| Background characteristics | Percentage of children who received | | | | | Percentage with a card |
|---|---|---|---|---|---|---|
| | BCG | Polio3 | Measles | All[1] | None | |
| **Child's sex** | | | | | | |
| Male | 61.5 | 46.7 | 52.4 | 41.6 | 37.0 | 50.3 |
| Female | 59.8 | 48.7 | 49.5 | 41.2 | 38.5 | 50.4 |
| **Residence** | | | | | | |
| Urban | 94.7 | 84.5 | 87.0 | 79.0 | 3.9 | 80.1 |
| Asmara | 97.5 | 91.6 | 93.3 | 87.4 | 0.8 | 89.1 |
| Other Town | 91.5 | 76.1 | 79.5 | 69.1 | 7.5 | 69.4 |
| Rural | 51.0 | 37.1 | 40.7 | 30.6 | 47.4 | 41.8 |
| **Zone** | | | | | | |
| Southern Red Sea | (21.7) | (21.7) | (21.7) | (21.7) | (78.3) | (17.9) |
| Northern Red Sea | 32.0 | 24.2 | 27.8 | 20.2 | 65.7 | 15.8 |
| Anseba | 59.5 | 25.3 | 53.5 | 24.5 | 40.5 | 51.5 |
| Gash-Barka | 30.1 | 16.3 | 19.7 | 10.3 | 67.9 | 22.5 |
| Southern | 71.0 | 59.3 | 55.9 | 49.0 | 27.0 | 58.8 |
| Central | 97.7 | 90.2 | 91.3 | 85.3 | 1.3 | 90.2 |
| **Mother's education** | | | | | | |
| No education | 50.8 | 37.7 | 41.9 | 32.3 | 47.4 | 42.4 |
| Primary incomplete | 91.7 | 73.3 | 74.9 | 62.2 | 8.3 | 73.4 |
| Primary complete | (88.6) | (80.8) | (77.0) | (72.6) | (9.1) | (75.3) |
| Secondary+ | (94.6) | (92.7) | (94.6) | (88.9) | (3.5) | (79.7) |
| **Total** | 60.7 | 47.7 | 51.0 | 41.4 | 37.7 | 50.3 |

**Note:** Figures in parentheses are based on 25 to 49 children.
[1]Children who are fully vaccinated (i.e., those who have received BCG, measles, and three doses of DPT and polio (excluding polio 0)).
**Source:** EDHS, 1995.

Coverage rates for immunisation also vary substantially by rural-urban as well as regional location (see the Table above and the figure on the next page). As with other care-taking practices, education of the mother makes a crucial difference: according to the EDHS, only 32 percent of children (12-23 months of age) of mothers with no education had been fully immunised compared to 62 percent and 89 percent, respectively, of those with mothers who had incomplete primary and secondary or higher education.

**Percentage of Children Age 12-23 Months Who Have Received All Vaccinations**




*Source: EDHS,1995.*

To raise EPI coverage, it will be necessary to purchase equipment, increase training, and improve social mobilization. Once EPI brings a community into regular contact with the health system, other health interventions – monitoring of growth, providing ante-natal care, distributing iron and vitamin A capsules, promoting breastfeeding and ORT, and teaching about family planning – can "piggy-back" on EPI. This strategy, called "EPI Plus", has enabled many countries to accelerate progress in safeguarding the lives of children and women.

# AIDS: Prevention is the Only Hope

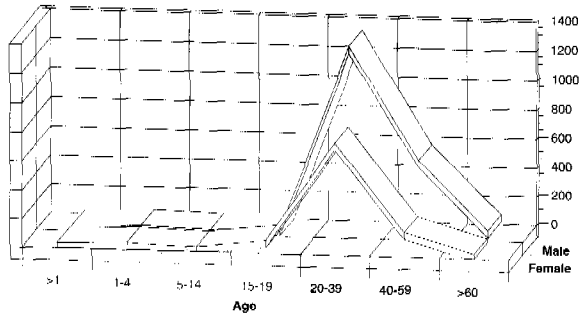
By the end of 1996, there were 2,917 registered cases of AIDS in Eritrea. In addition, an estimated 60,000-100,000 Eritreans are HIV positive. About 70 percent of reported cases involve persons between 20 and 39 years of age; 2 in 3 cases are male.

HIV/AIDS is now a leading cause of child mortality in Africa. In heavily infected countries, such as Uganda and Malawi, AIDS is overtaking measles and malaria as a leading killer of children, reversing hard-won gains in reducing child mortality. A child born to an HIV-positive mother has a 1 in 3 chance of being born with the virus. Those born with HIV die before they are five. Those who escape infection join the ranks of AIDS orphans. As more people acquire AIDS, fewer are left to work the farms, care for children or pay for basic services. As a result, able-bodied people in their prime do not contribute to the economy but drain away its resources. The burden falls on those least able to carry it: orphaned adolescents and grandparents past the prime of their lives.

AIDS has no cure. But by bringing health education and family planning to more people, we can help them to protect themselves. It is our only hope. The challenge in Eritrea is considerable but not overwhelming. For instance, results from the EDHS show that 72 percent and 89 percent of women and men, respectively, know about AIDS. Unsurprisingly, knowledge is almost universal among urban women and men as well as those with some form of education, whereas it is significantly less among those living in rural areas and with no education, particularly in the case of women. Another noteworthy aspect is that awareness about protection against AIDS is more patchy than knowledge about the disease itself: only about a third and a quarter of women and men, respectively, referred to the use of condoms or avoidance of sex with prostitutes as forms of protection against HIV infection. Condoms are, however, not easily available.

The National Union of Eritrean Youths and Students (NUEYS) has recently started a counselling centre for HIV/AIDS targeting the youth. The Joint United Nations Programme on HIV/AIDS (or UNAIDS) has also opened an office in Asmara to co-ordinate U.N. support for HIV/AIDS control.

**Registered AIDS Cases in Eritrea by Age & Sex, 1988-96**




*Source: MOH, 1996.*

# Preventing Complications in Childbirth

Post-partum sepsis occurs often in Eritrea. A clean surface for delivery, clean hands for the assistant, and a clean cut of the umbilical cord help to prevent it but the "three cleans" are not always followed. Rusty instruments may be used to cut the cord and dung applied to the cut to "suture" it. Sepsis may also result from unhygienic abortion. In Eritrea, abortion is illegal. Women seeking abortion avoid regular health facilities, with the result that complications may not be adequately attended.

Haemorrhage and obstructed labour are more likely for women who have suffered genital mutilation or FGM (circumcision, excision or infibulation) which can permanently damage health and chances of safe delivery. The procedure can result in severe blood loss, infection, tetanus, or mutilation of the bladder or the urethra. After puberty, it may cause painful menstruation, painful intercourse and infections which may result in sterility. Infibulation may bring complications in childbirth, as scar tissue is broken during delivery and re-infibulation follows. Female genital mutilation is, consequently one of the traditional practices in Eritrea which need to be steadily reduced and eventually eliminated (see panel on p.11).

**Assistance During Delivery**

Percent distribution of births in the three years proceeding the survey by type of assistance during delivery, according to selected background characteristics, Eritrea 1995.

| Background characteristic | Attendant assisting during delivery[1] | | | | | |
|---|---|---|---|---|---|---|
| | Doctor | Nurse/ Trained midwife | Traditional birth attendant[2] | Relative/ Other | No one | Don't Know/ Missing |
| **Mother's age at birth** | | | | | | |
| <20 | 9.6 | 13.2 | 52.0 | 24.7 | 0.5 | 0.0 |
| 20-34 | 8.2 | 13.2 | 53.3 | 23.0 | 1.9 | 0.3 |
| 35+ | 5.6 | 10.8 | 56.6 | 24.8 | 2.1 | 0.1 |
| **Birth order** | | | | | | |
| 1 | 14.8 | 18.1 | 46.3 | 19.9 | 0.7 | 0.1 |
| 2-3 | 7.0 | 12.9 | 54.7 | 23.7 | 1.2 | 0.3 |
| 4-5 | 5.7 | 8.5 | 58.8 | 24.6 | 2.1 | 0.3 |
| 6+ | 4.6 | 11.2 | 55.0 | 26.2 | 2.9 | 0.1 |
| **Residence** | | | | | | |
| Urban | 26.9 | 36.5 | 26.4 | 9.6 | 0.2 | 0.4 |
| Asmara | 37.5 | 41.8 | 16.6 | 3.3 | 0.3 | 0.5 |
| Other town | 15.0 | 30.4 | 37.4 | 16.7 | 0.2 | 0.2 |
| Rural | 2.9 | 6.4 | 61.1 | 27.4 | 2.1 | 0.2 |
| **Zone** | | | | | | |
| Southern Red Sea | 1.5 | 21.3 | 68.0 | 6.9 | 0.0 | 2.2 |
| Northern Red Sea | 3.0 | 10.6 | 56.8 | 26.6 | 3.1 | 0.0 |
| Anseba | 2.1 | 12.0 | 54.3 | 29.9 | 1.7 | 0.0 |
| Gash-Barka | 3.0 | 8.1 | 62.9 | 21.9 | 3.8 | 0.3 |
| Southern | 5.8 | 6.2 | 55.7 | 31.3 | 1.0 | 0.0 |
| Central | 26.0 | 31.1 | 35.5 | 6.8 | 0.2 | 0.6 |
| **Mother's education** | | | | | | |
| No education | 3.2 | 6.3 | 59.9 | 28.3 | 2.2 | 0.2 |
| Primary incomplete | 18.6 | 27.9 | 42.0 | 10.5 | 0.4 | 0.5 |
| Primary complete | 29.5 | 34.7 | 28.5 | 7.4 | 0.0 | 0.0 |
| Secondary+ | 33.6 | 53.0 | 11.2 | 2.2 | 0.0 | 0.0 |
| **Antenatal care visits** | | | | | | |
| None | 1.5 | 3.7 | 61.6 | 30.7 | 2.5 | 0.0 |
| 1-3 visits | 6.0 | 11.1 | 57.7 | 23.7 | 1.6 | 0.0 |
| 4 or more visits | 22.0 | 31.2 | 35.8 | 10.4 | 0.4 | 0.2 |
| **Total** | 7.9 | 12.7 | 53.8 | 23.7 | 1.7 | 0.2 |

**Note:** Total includes 17 births for whom information was missing on receipt of antenatal care or number of antenatal care visits.

[1] If the respondent mentioned more than one attendant, only the most qualified attendant was considered.

[2] Traditional midwife

Source: EDHS, 1995.

# Promoting Safe Motherhood

Eritrean mothers and their partners should be motivated to seek proper care during pregnancy and delivery. According to the EDHS, in the case of just under half of all births in the three years preceding the survey did the mother seek antenatal care during pregnancy, about a quarter from a doctor, approximately another quarter from a nurse or trained mid-wife and a negligible proportion from a traditional birth attendant (TBA). As for the stage of pregnancy at the time of the first antenatal visit, 30 percent of prospective mothers had made their initial visit when they were less than 6 months pregnant, 16 percent when 6-7 months pregnant and 3 percent at the eighth month or more of their pregnancy, yielding a median of 5.4 months. These numbers compare to the recommendation from specialists that a woman should make her initial antenatal visit during the first trimester of her pregnancy. Moreover, only about a third of pregnant women had taken iron or multi-vitamin tablets.

In terms of place of delivery, most births (82 percent) take place in the home with most of the remaining ones in a health facility (17 percent). As can be expected, the largest proportion of births in urban areas take place in a health facility (58 percent generally, 76 percent in Asmara) while those in rural locations usually occur at home (93 percent). Assistance during delivery comes primarily from TBAs (54 percent), followed by relatives or other persons (24 percent), a nurse or trained midwife (13 percent) and doctors (8 percent). In urban areas, assistance during delivery is generally provided by a doctor or nurse/trained mid-wife (63 percent) followed by TBAs (26 percent); in rural areas, TBAs do most of the work (61 percent), followed by relatives or other persons (27 percent) and, least of all, doctors or nurses/trained mid-wives (9 percent).

## Safe Motherhood in Eritrea - An Urgent Task

The recently concluded Eritrea Demographic and Health Survey (EDHS, 1995) has revealed an even more alarming situation of unsafe motherhood in the country than was previously thought to be the case. It estimates a national maternal mortality ratio (MMR) of 998 pregnancy-related deaths per 100,000 live births, amongst the highest in the world. The Government has already taken cognisance of this problem and has begun to lay the groundwork for launching a major Safe Motherhood Initiative (SMI). As part of the initial steps, two studies were commissioned by the Ministry of Health (MOH) with funding from UNICEF and UNFPA to provide more data and analysis on two key issues: (a) the availability and quality of maternal health services and (b) community level factors influencing safe motherhood. The results of these two studies together with those from the EDHS, were discussed at a National Safe Motherhood Workshop held from 21-23 October, 1996, which helped establish the basis for accelerated action.

The assessment of maternal health services made a number of findings which go a long way towards explaining the low coverage of antenatal (ANC) services nationally, currently estimated at just under 50 percent (EDHS, 1995). They are as follows:

- a serious lack of trained staff - physicians, midwives and nurses are scarce and the few that are available are mainly clustered at national and regional hospitals;
- a severe shortage of adequate equipment and materials - facilities fully equipped for undertaking certain life-saving tasks such as caesarean delivery or manual removal of retained placenta are only found in urban centres (all caesarean operations, 93 percent of instrumental and 79 percent of normal assisted deliveries took place in national and regional hospitals during 1995);
- despite the existence of a referral system, an insignificant difference between health stations and health centres in terms of staffing patterns, available equipment and the quality of care provided;
- a lack of motivational and promotional activities, thus, inhibiting the progress, development and coverage of antenatal care; and,
- finally, a low quality of antenatal care - more than 83 percent of clients had never had urine analysed for proteinurea, only 2.6 percent (consisting of women living in Asmara) had been tested for syphilis while just 25 percent had had their haemoglobin level tested.

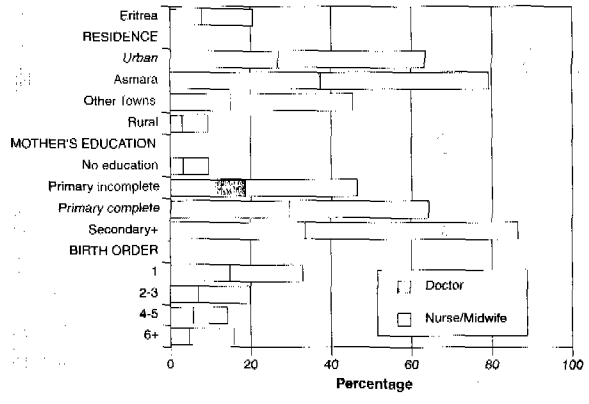
The cultural constraints associated with poor antenatal care attendance, maternal morbidity and mortality are equally daunting. The community level study found several negative factors affecting maternal morbidity and mortality in Eritrea which including:

- the overall low social and economic status of women;
- the widespread practice of female genital mutilation/FGM (see the next Panel);
- food taboos during pregnancy;
- a heavy workload which impairs the nutritional status of women throughout their life cycle, hence, making them more vulnerable to maternal morbidity and mortality;
- early marriage; and, last but not least,
- a belief that pregnancy is a natural phenomenon that does not require medical attention.

On the other hand, helpful traditional practices were also identified by the study such as long breastfeeding duration (up to two years), tish (fumigation) which helps in cleansing and relaxing expectant mothers, providing warm and nutritious fluids to women before and during labour, and encouraging immediate bonding between mother and the new-born baby.

*Sources: Araya, T., Maternal Needs Assessment Study in Eritrea, draft, Asmara, October, 1996; Issayas, S., KAP on Safe Motherhood in Eritrea, draft, Asmara, October, 1996.*

**Percentage of Births in the Three Years preceding the Survey for Which Mothers Received Assistance at Delivery from Medical Personnel**




*Source: EDHS,1995.*

A few simple practices can reduce the lifetime risk of dying from common pregnancy-related causes. These include providing a pregnant woman with iron, iodine and vitamin A supplements, observing the "three cleans" and avoiding the "four toos" (not having too many children, too close together, too early or too late in life). Eritrea also needs to establish a health care network that can provide emergency obstetric care to women with high-risk pregnancies. Mothers, fathers, health workers and traditional birth attendents will need to be educated to watch for signs that emergency care may be required during pregnancy and delivery.

# Ending Harmful Traditional Practices

Traditional harmful practices remain common and need to be tackled as a matter of priority. Many involve wounding the child. Most Eritrean girls undergo genital mutilation. Many boys and girls have their gums burned at first teething. First teeth may be excised, tonsils ruptured, cheeks and foreheads scarified. Cuts may be made over a child's eyebrows to ease swelling when a child has an infection. Because hygienic precautions are rarely used, these procedures bring a high risk of infection and blood loss (which is life-threatening in anaemic victims).

Uvulitis, the inflammation of the uvula, deserves special mention. Because many people believe that the inflamed uvula may cause suffocation, they treat it by cutting out the uvula. Infection may occur either because the cut was not hygienic or because the mother stops breastfeeding and gives butter instead. Dirty food can also infect the wound, resulting in septicaemia, vomiting, diarrhoea, and death.

## Female Genital Mutilation (FGM) - A Grave Threat to Good Health

Female circumcision, also known as female genital mutilation or FGM, is a widely observed practice in Eritrea but its scope and effects were known until recently only through anecdotal evidence. The Eritrea Demographic and Health Survey (EDHS, 1995) has now changed the situation, providing detailed information on important facets of this problem. One may ask, however, why FGM is important. The answer is simple: it seriously endangers the health of girls and women, both in the short- and long-term, from bleeding, shock, infection and even death during the procedure to pain and further bleeding as well as infection during sex and at the time of delivery. It also represents a classic case of gender discrimination.

The findings of the EDHS show that FGM is an almost universal phenomenon in the country with 95 percent of women 15-49 years of age having been circumcised. Among the different types of FGM, the most common are clitoridectomy (61 percent), infibulation (34 percent) and excision (4 percent). No large differences in the incidence of the practice were revealed between rural and urban areas although there is lower occurrence of infibulation and a greater reliance on clitoridectomy in urban locations. There is also substantial differentiation by religion and ethnicity with regard to the type of circumcision used.

The EDHS also asked mothers if their eldest daughter had been circumcised (where applicable): the answer was in the affirmative for 7 out of 10 girls in this group.[1] As for age at the time of circumcision, about half had been subjected to the procedure in their first month of life (half of this group before 8 days!), a quarter between 1-11 months and almost another quarter after 2 years of age. The procedure itself is performed almost exclusively by traditional circumcision practitioners (95 percent) and, at the margin, by traditional midwives (4 percent).

As for problems arising from FGM, 1 in 5 women who had been circumcised reported having difficulties (attributable to this practice) during sex or delivery, but more so in the latter case. Disaggregation reveals that the magnitude of the problems varies according to the type of circumcision endured: 44 percent and 38 percent of women subjected to excision and infibulation, respectively, reported suffering some problems or complications. When difficulties do arise, most women (75 percent) do not seek any treatment and only small proportions go to a health facility (15.5 percent) or use traditional healers (9.5 percent).

Regarding the possibilities of tackling this major threat to health, the EDHS provides room for cautious optimism. Although the survey shows that only one percent of mothers and fathers had actually objected to their daughter being circumcised, overall support appears lower than actual practice: thus, among women, 57 percent would like to continue the practice and 38 percent discontinue it with another 5 percent without any opinion on the subject; among men, 46 percent wish to continue and 41 percent discontinue the practice with a significant number (13 percent) not knowing what to say. Support among women for the continuation of circumcision tends also to decline significantly with decreasing age and urban compared to rural location, however, most dramatically with increasing education. Contrary to expectations, support for circumcision is actually lower among men although following a similar pattern according to age, location and education.

The reasons for practising genital mutilation were described by women as custom and tradition, cleanliness, preservation of virginity and prevention of immorality and religious demand, in that order, whereas men stressed custom and tradition followed by preservation of virginity and prevention of immorality and, with similar frequencies, religious demand and cleanliness. Of the women who favour discontinuation, the reasons offered were as follows: bad tradition (72 percent), medical complication (37 percent), painful personal experience (24 percent), against the dignity of women (14 percent) and prevents sexual satisfaction (11 percent). Among men, the main reasons for discontinuation were medical complication (76 percent), bad tradition (51 percent), prevents sexual satisfaction (28 percent) and "painful personal experience" (23 percent).

[1] This does not mean that the incidence of FGM is decreasing; it could well be that some girls have not yet reached the desired age for genital mutilation.

*Source: National Statistics Office and Macro International, Inc., Eritrea Demographic and Health Survey, 1995.*

# Expanding Health Services

Child and maternal deaths too often result from common treatable diseases. Strategies for controlling these diseases are cheap, well-known and effective. To ensure prevention where possible, and treatment where necessary, primary health care should reach every Eritrean. A key strategy will be decentralizing essential health services to the community level and promoting people's involvement in their control, management and financing.

## Improving Access

During the war of independence, Eritrea's health care system was largely destroyed. As a result, despite impressive recovery, the country presently has 20 hospitals/mini-hospitals, and only 48 health centres and 145 health stations. Over half of Eritreans live 20 kilometres from the nearest health station – a distance, in mountainous terrain, that may be too great to travel, involving large costs.

People living in rural regions have far less access to health care than those in Asmara. Half of Eritrea's doctors and half of its hospital beds are in Asmara, which has less than one-fifth of the people. The former province of Sahel, with 8 percent of the national population, had 1 health centre and 4 health stations (but two hospitals). Because transport and communication in the area are poor, these facilities are isolated and, therefore, poorly integrated with the rest of the health care system.

## Improving Quality

Improved access will bring little benefit unless the care provided is adequate. A district of 150,000 people should have one hospital, 3 health centres and 15 health stations, staffed with physicians and other trained staff, as well as supplied with vaccines, essential drugs and medical equipment.

Eritrea is still some distance from this goal. There are only about 130 doctors, 950 nurses and health assistants and 70 laboratory technicians in the country. One doctor for every 20,000 people is not enough.

Drugs can also be in short supply. About 70 percent of health units consume their 12-month drug allotment in 9 months. Some of this shortfall results from over-prescription, duplication or inappropriate diagnosis, but not all of it. The drug factory which supplied the liberated areas with 44 key items during the war is being upgraded and relocated to Keren, in an effort to alleviate this shortage.

Finally, diagnostic equipment is inadequate. There are only 6 functioning X-ray machines, 7 complete operating rooms and 14 diagnostic laboratories in the country. Only 1 in 3 hospitals can provide X-rays or routine and elementary laboratory investigations. Improvements are needed here as well.

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# Nutrition

## Malnutrition Affects 4 in 10 Children

Malnutrition stunts the mental and physical growth of 4 in 10 Eritrean children under three years of age. At least 1 in 10 are born with a birth weight below 2,500 grams. From the moment of birth, their young bodies have to make compromises to sustain themselves. The metabolic rate drops to compensate for fewer nutrients. Blood pressure drops. Bone growth slows and brain development is retarded as well. With low body fat, when the body draws down reserves, muscle is depleted instead.

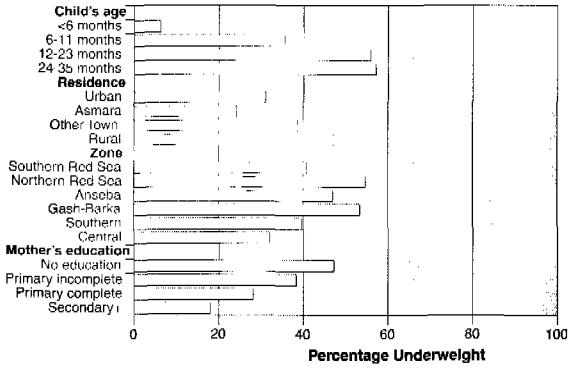
Babies are born with low birth weight because their mothers are malnourished. Data from the EDHS reveal that the mean body mass index (BMI) of women who had a birth in the three years preceding the survey was 19.5 against the minimum of 18.5(kg/m$^2$); 41 percent of this group was below this standard. Regionally, the proportion scoring below 18.5(kg/m$^2$) varied from 25 percent in Central to an astonishing 64 percent in Southern Red Sea with Northern Red Sea and Anseba clustered together at 43 and 47.5 percent, respectively, Gash-Barka at 52 percent and Southern at 38 percent.

Food taboos, malaria, anaemia and heavy workloads even during pregnancy may be contributory factors. Ill-health in the mother can easily translate into ill-health in her baby, initiating a downward spiral in the development of the infant and young child.

About 16 percent of children under three are "wasted": they show low weight for height, indicating acute hunger. This is one of the highest rates in the world. Wasting typically peaks in the second year of life, when weaning occurs. About 38 percent of children under three are also "stunted": they show low height for age, indicating chronic hunger. It is worth remembering, however, that rates of stunting would be even higher among older children, revealing the cumulative effects of malnutrition over a longer period of time. In fact, an earlier national survey (Health and Nutrition Survey/HNS, 1993) revealed that 66 percent of children under five years of age were stunted.

Malnourished children have seriously reduced abilities to fight illness. In Eritrea, malnutrition is probably a factor in 1 in 3 child deaths. A mildly malnourished child is twice as likely, and a seriously malnourished child 8 times as likely, to die from a given disease. But even if a child survives and nutrition improves, losses in physical and mental development may be irreversible. A child has only one chance to grow.

### Underweight Children in Eritrea by Selected Background Characteristics (for children under three years of age)




*Source: EDHS, 1995.*

### Underweight Children in Eritrea by Selected background Characteristics

Percentage of children under three years of age who are classified as malnourished according to weight-for-age, by selected background characteristics, Eritrea 1995.

| Background characteristic | Percentage below -2SD[1] |
|---|---|
| **Child's age** | |
| <6 months | 6.2 |
| 6-11 months | 35.5 |
| 12-33 months | 55.8 |
| 24-35 months | 57.1 |
| **Residence** | |
| Urban | 31.0 |
| Asmara | 24.2 |
| Other Town | 38.6 |
| Rural | 47.1 |
| **Zone** | |
| Southern Red Sea | 40.8 |
| Northern Red Sea | 54.7 |
| Anseba | 47.0 |
| Gash-Barka | 53.0 |
| Southern | 39.7 |
| Central | 32.0 |
| **Mother's education** | |
| No education | 47.2 |
| Primary education | 38.3 |
| Primary complete | 28.2 |
| Secondary+ | 18.0 |
| **Total** | 43.7 |

Note: Figures for children born in the period 0-35 months preceding the survey. The index is expressed in terms of the number of standard deviation (SD) units from the median of the NCHS/CDC/WHO international reference population. Children are classified as malnourished if their Z-score is below minus two or minus three standard deviations (-2SD or -3SD) from the median of the reference population.

[1] Includes children who are below -3SD.

Source: EDHS, 1995.

**Nutritional status of mothers by background characteristics**

Among women who had a birth in the three years preceeding the survey, mean body mass index (BMI) of women, and percentage of women whose BMI is less than 18.5(kg/m²), by selected background characteristics, Eritrea 1995.

| Background characteristic | Mean | Percentage <18.5(kg/m²) | Number of women |
|---|---|---|---|
| **Age** | | | |
| 15-19 | 18.8 | 45.2 | 158 |
| 20-24 | 19.1 | 42.4 | 363 |
| 25-29 | 19.3 | 43.7 | 402 |
| 30-34 | 19.5 | 41.3 | 322 |
| 35-49 | 20.0 | 35.3 | 534 |
| **Residence** | | | |
| Urban | 21.1 | 27.1 | 384 |
| Asmara | 21.9 | 20.9 | 206 |
| *Other Towns* | 20.2 | 34.2 | 178 |
| Rural | 19.0 | 44.3 | 1,395 |
| **Zone** | | | |
| Southern Red Sea | 18.4 | 63.9 | 48 |
| Northern Red Sea | 19.2 | 42.9 | 235 |
| Anseba | 19.3 | 47.5 | 232 |
| Gash-Barka | 18.8 | 51.6 | 327 |
| Southern | 19.2 | 38.0 | 607 |
| Central | 20.9 | 24.6 | 329 |
| **Education** | | | |
| No education | 19.1 | 44.0 | 1,358 |
| Primary incomplete | 20.1 | 33.7 | 246 |
| Primary complete | 20.6 | 27.6 | 88 |
| Secondary+ | 21.7 | 20.8 | 87 |
| **Total** | 19.5 | 40.6 | 1,779 |

Note: Table includes only women who had a birth in the three years preceding the survey. The BMI index excludes pregnant women and those who are less than three months postpartum.
Source: EDHS, 1995.

## Households are Food Insecure

A household is "food secure" when it can provide adequate food, in terms of food quantity and quality, on a sustained basis to support its members in healthy and productive lives. Most Eritreans, however, are consuming low quality foods based largely on cereals.

Household food security depends both on the household's food production and on its ability to command (including purchase) food produced by others. In Eritrea, most rural households are too poor to buy food. As a consequence, they may need temporary assistance such as cash-for-work in the hungry period before the harvest. Urban households, of course, must buy food, but what they can buy depends on their wages and food prices. It is possible for food prices to rise faster than wages, to the point that poor urban people go hungry. Hence, they may need temporary assistance as well. Some people – the aged, the handicapped and asset-poor returnees – are structurally vulnerable to hunger and need long-term assistance to cope with the problem.

## Lack of Food is Not Always the Problem

Even in poor families, there can be enough food to meet the needs of a little child. When this is the case, the causes of malnutrition typically lie elsewhere.
*Frequent illness* reduces the child's appetite, inhibits food absorption, burns away calories in fever and drains away nutrients in vomiting and diarrhoea.

*Bottlefeeding* may involve dirty bottles filled with overdiluted formulas and unsafe water, reducing nutrition and increasing exposure to disease. Fortunately, about 6 out of 10 new mothers exclusively breastfeed their babies during the first three months (although this proportion does decline to 4 out of 10 by the 4-6 month period), providing their newborns with a fresh, safe, and nutritious meal which also contains antibodies against disease. Nonetheless, improvements are possible. Women should be encouraged to breastfeed exclusively in the first 6 months, to give the newborn colostrum, to feed on demand and to continue feeding even when ill, tired or overworked.

Working towards these ends, Eritrea has made remarkable progress in implementing the global Baby and Mother Friendly Hospital Initiative: by the end of 1996, 96 percent of all maternity facilities in the country were certified as baby and mother friendly. Furthermore, to reinforce this achievement, a code of marketing for breastmilk substitutes is expected to be approved by the end of 1997.

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## Breastfeeding status

Percent distribution of living children under three years of age by current breastfeeding status, according to child's current age in months, Eritrea 1995.

| | Breastfeeding Status | | | |
|---|---|---|---|---|
| | | | Breastfeeding and: | |
| Age in months | Not breast-feeding | Exclusively breastfed | Plain water only | Comple-mentary foods |
| <2 | 0.0 | 75.5 | 10.8 | 13.8 |
| 2-3 | 0.4 | 56.6 | 15.7 | 27.3 |
| 4-5 | 0.5 | 45.0 | 25.2 | 29.3 |
| 6-7 | 1.2 | 21.0 | 20.4 | 57.4 |
| 8-9 | 0.0 | 9.8 | 15.0 | 75.2 |
| 10-11 | 4.0 | 6.3 | 6.7 | 83.1 |
| 12-13 | 7.4 | 3.2 | 3.3 | 86.2 |
| 14-15 | 8.2 | 0.0 | 1.5 | 90.4 |
| 16-17 | 14.9 | 0.9 | 2.2 | 82.0 |
| 18-19 | 21.3 | 0.0 | 1.4 | 77.2 |
| 20-21 | 32.7 | 0.5 | 1.3 | 65.5 |
| 22-23 | 46.5 | 0.0 | 1.0 | 52.5 |
| 24-25 | 67.6 | 0.0 | 1.4 | 31.0 |
| 26-27 | 73.9 | 0.0 | 0.5 | 25.6 |
| 28-29 | 78.9 | 0.0 | 0.0 | 21.1 |
| 30-31 | 82.5 | 0.0 | 0.0 | 17.5 |
| 32-33 | 83.7 | 0.0 | 0.0 | 16.3 |
| 34-35 | 83.8 | 0.0 | 0.0 | 16.2 |
| 0-3 months | 0.2 | 65.0 | 13.5 | 21.2 |
| 4-6 months | 1.2 | 40.2 | 23.2 | 35.5 |
| 7-9 months | 0.0 | 9.5 | 17.0 | 73.6 |

Note: Breastfeeding status refers to 24 hours preceding the survey. Children classified as *breastfeeding and plain water only* receive no complementary food.

Source: EDHS, 1995.

*Poor weaning practices* could be one of the reasons why malnutrition peaks in the second year of a child's life. When weaning begins too early, the risk of disease and malnutrition increases. When it begins too late, growth falters.

*Infrequent and inappropriate feeding* may also cause problems. In Eritrea, young children (less than two years of age) may receive only 2 to 4 meals a day, not the 5 or 6 that they need. Moreover, their meal is often an adaptation of adult food rather than protein-and energy-rich foods, fruits or vegetables. Commonly consumed dishes such as *injera* and *shiro*, local foods based on cereals and legumes, are believed to fulfil the energy and protein requirements of an individual provided there is sufficient supply. They, however, need to be supplemented by fats and vegetables in order to improve the energy density and nutrient value of the traditional diet.

*Inequitable food distribution* may also cause children and women to go hungry, even when a household is food secure. Among some ethnic groups, for example, adult males and other family members considered economically productive eat first, consuming the best food. These practices suggest, for example, that pregnant and lactating women who require more food to fulfil their physiological needs may suffer from poorer nutritional status. By the same token, children may have insufficient food for their growth and development, paying the price through higher levels of malnutrition.

# Micronutrient Deficiencies

## Eating Fruits and Vegetables to Prevent Vitamin A Deficiency

At present, 7 percent of Eritrean infants suffer from vitamin A deficiency (VAD) and 28 percent more are at risk of developing it. These relatively low rates may result from high rates of breastfeeding, since breast milk provides enough vitamin A for a baby. Vitamin A deficiency is probably much higher in older children, contributing to blindness and increased susceptibility to diarrhoea, measles and pneumonia – three leading killers of children. This deficiency can be easily prevented by adding small amounts of fruit or green vegetables to the child's diet or by giving the child a vitamin A capsule three times a year at a cost of about one Birr (15 US cents).

## Iodizing Salt to Prevent Iodine Deficiency Disorders

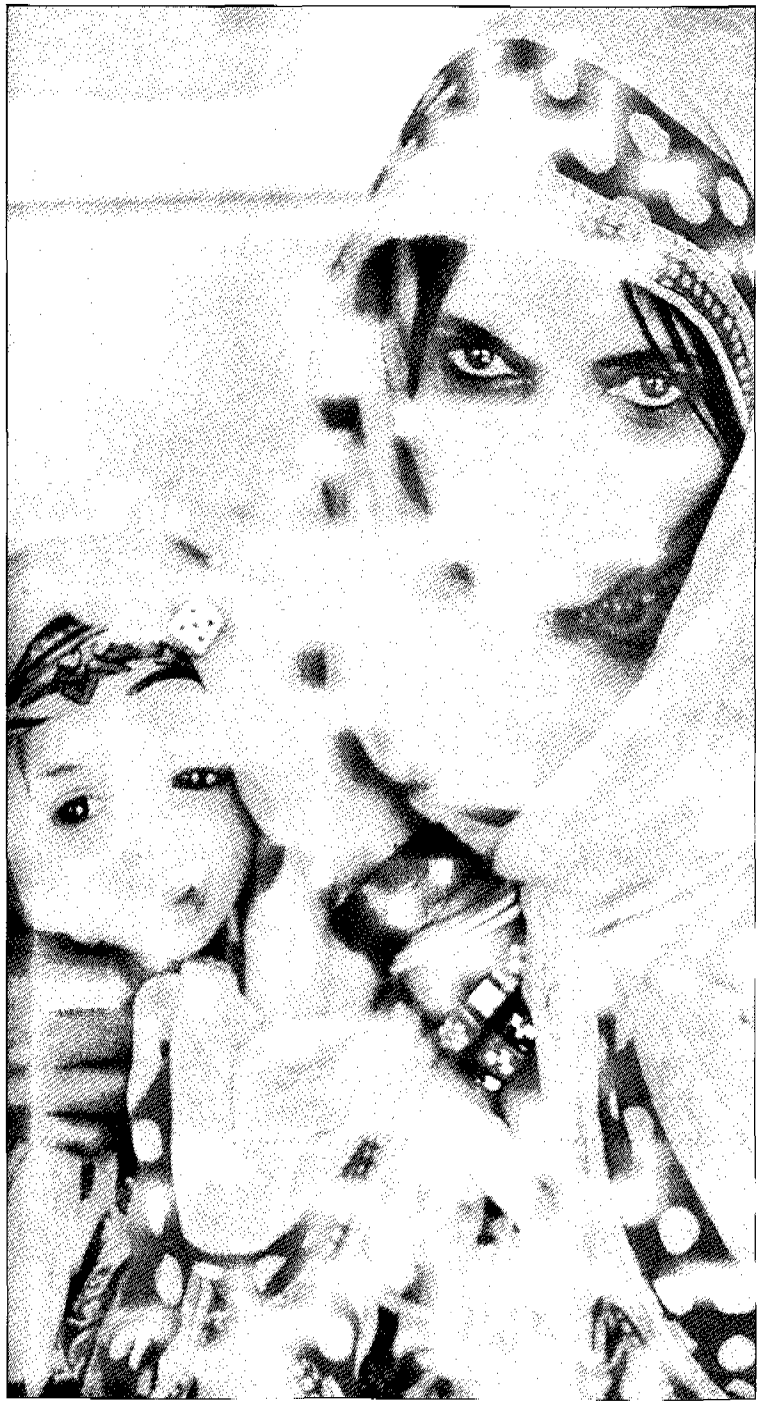
A pregnant woman with a high level of iodine deficiency may give birth to a child who is stillborn or brain-damaged. Unfortunately, iodine deficiency disorders (IDD) are widespread in Eritrea, with 22 percent of 10-year-old school children showing the most visible symptom of iodine deficiency – a goitre in the neck. Estimates based on a recent national survey (Micronutrient Deficiency Survey, 1993) suggest that 510 cretins and 50,960 infants suffering from some IQ loss are born in Eritrea every year due to iodine deficiency. It is also believed that as many as 637,000 children aged 0-17 years could have some form of IQ loss.

Iodine deficiency disorders can be prevented by adding iodine to salt, a universally consumed product. To this end, iodation equipment has started operating in the salt plants at Assab and Massawa, which supply most of Eritrea's – and Ethiopia's – salt. This will enable both these countries to counter the serious effects of IDD and enhance the productivity of their populations - at home, at the workplace and in schools.

## Using Iron Tablets to Prevent Anaemia

Another large problem in Eritrea is anaemia (iron deficiency). About 55 percent of infants have anaemia, which is a leading cause of mortality (12 percent) in children admitted to hospital. Anaemia among women is also believed to be high. Women need more iron than men. While men lose about 1 mg of iron per day, women usually lose 2 mg and pregnant and lactating women lose 3 mg as the child draws down some of the mother's iron. Pregnancy also brings greater risk to anaemic women. Malaria or haemorrhage in healthy women might result in mild anaemia but in anaemic women it is life-threatening.

Unfortunately, there is no easy way to prevent anaemia. Iron tablets, at 5 or 6 cents (one US cent), are inexpensive but they require adequate contact between women and health services. The most promising solution, the double fortification of salt with iron and iodine, is not yet fully tested. In Eritrea, the traditional practice of letting the "sick" blood of an anaemic patient is extremely damaging – an anaemic person needs to have her blood increased, not have it taken away.



UNICEF ESAR

# Water and Sanitation

Safe water and adequate sanitation are important for maintaining good health. Of the 37 major diseases in developing countries, 21 are related to water and sanitation.

## Water Supplies Need to be Expanded

It is difficult to secure water for drinking or farming because Eritrea's rivers are dry or seasonal. Most Eritreans, therefore, rely on ground water. While ground water is a renewable resource, there is a danger that it will be exploited more quickly than it can be replenished.

A Water Resources Survey carried out in 1994 estimated that only 7 percent of rural households and 44 percent of urban households have access to safe drinking water. The same source suggests that the average Eritrean uses less than 5 litres of safe water per day, one-quarter of the minimum WHO standard. The EDHS, however, reveals a better situation although it is still cause for serious concern. According to this source, about 90 percent of urban households have access to water either piped into their residence, available at a public tap or from tanker trucks. In contrast, about half of all rural households use unprotected sources of water such as springs and rivers/streams; the other half rely primarily on public wells (hand dug wells or boreholes of varying standards; 41 percent) or public taps (8 percent). Nationally, about 22 percent of households have access to piped water at home or from a public tap, another 9 percent rely on tankers, 32 percent on public wells and a significant proportion, 36 percent, on unprotected sources (for example, springs, rivers and dams).

While urban Eritreans may have access to piped water, the systems are old and lose as much as half their water through leaks and breaks. Rural Eritreans collect water from springs, rivers/streams, reservoirs or drilled wells. Where great distances are involved, for example in the arid lowlands, the daily burden of hauling water discourages people from using it for hygiene: this would be considered wasteful and extravagant. For instance, the EDHS shows that 73 percent of urban households can have access to their water source within 15 minutes whereas only 7 percent of rural households can claim the same.

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While wells offer reliable access, siting is difficult, only 3 in 5 boreholes are successful, and the technology required is expensive. About 4 in 5 pumps in existing wells are functioning. Most are India Mark II handpumps. The depth of the pump cylinder installation can be as much as 60 metres. Functioning pumps are deteriorating rapidly from overuse as both humans and animals take water from the same sources. Maintenance is poor. Many above-ground and all below-ground repairs require maintenance teams to come from a regional capital or from Asmara. With few workers, limited numbers of vehicles, non-standardized equipment and great distances to cover, pump maintenance teams face enormous obstacles in their work.

## Sanitation Needs to Improve

The Water Resources Survey also estimated that less than 1 percent of rural households and 12 percent of urban ones have access to sanitary facilities. If sanitary *use* of facilities were the measure for access, the figures would be lower still; most people do not know or practise good hygiene. The EDHS confirms the rural estimate, indicating that 99 percent of all rural households have no facility for excreta disposal, that is, in all probability use the bush. Figures for urban areas are, however, more encouraging: 30 percent use their own flush toilet, 15 percent share a flush toilet and 18 percent use a traditional pit latrine. Nevertheless, even in urban areas, slightly more than a third of all households have no sanitation facilities. Aggregated across the country, the data from the EDHS show that about 82 percent of all households do not have access to a sanitation facility. Even more than the provision of safe water, access to adequate means of sanitation is the great environmental health challenge in Eritrea.

In urban areas, only Asmara and parts of Keren, Massawa, Mendefera, Agordat and Adi Keyih have piped sewerage. About 40 percent of Asmara's houses are connected, but the system is in poor repair and in several cases it empties into peri-urban neighbourhoods, posing serious health risks. Another 20 percent of Asmara's houses are connected to septic tanks or pit latrines. The remaining 40 percent have no system. Public latrines are being built where households are too poor to afford their own.

In rural households, as a result of poverty and ignorance, sanitation is inadequate. Water sources are not kept clean. Latrines are rare. Clay water pots may be covered but because they are cleaned with earth or sand, stored water is often contaminated.

## Hygiene Education is Important

Good hygiene is more important for health than household connections, water treatment plants and mechanized sewage systems which may cost Birr 3,000 (US$ 500) per person or more. Even with state-of-the-art facilities, almost everything depends on the way they are used. To prevent the spread of germs, people need to wash their hands before handling food. Children's hands need to be washed often, for children frequently put their hands in their mouths. Food needs to be cooked thoroughly. Animals need to be kept away from homes and water sources. Water needs to be filtered and boiled to kill germs and water sources need to be covered. Waste and household refuse needs to be buried or burned.

Where safe water is needed, low-cost technologies may be available for as little as Birr 180 (US $ 30) per person or less where community volunteers assist in installing and maintaining them. Ten years ago, it cost US$ 9,500 to sink and equip a borehole in the Sudan – a country with geographical characteristics similar to Eritrea. Today it costs US$ 2,800. This cost may be too large for the government to bear alone, requiring some cost-sharing with communities and external development partners. Rich and poor people alike are willing to pay for water. Almost 5 in 10 peri-urban dwellers and 9 in 10 urban dwellers already do so. But cost recovery must be made more equitable. In Eritrea today, the urban poor often pay considerably more for their water than the rich because they have to rely on more expensive water trucks rather than piped supplies or handpumps.

### The Challenge of Sanitation and Hygiene in Eritrea

There is a widespread misperception that safe water invariably contributes to better health. While water is essential for survival, evidence from around the world shows that sanitation and hygiene are significantly more important in promoting good health and enhanced productivity. The logic is simple: the value of access to safe water is greatly reduced when poor sanitation and hygiene - such as improper rubbish and excreta disposal, unclean hands or dirty utensils - lead to contamination and disease transmission. In Eritrea, the situation is alarming. Data from the Water Resources Survey (1994) and the Demographic and Health Survey (1996) reveal that less than one percent of the rural population has access to adequate means of excreta disposal. As part of the national response to this major challenge, the Water Resources Department (WRD) decided to commission a nation-wide knowledge, attitudes and practices (KAP) survey on the subject. It was carried out in 1995 with funding from UNICEF, covering 2,118 households from all ethnic groups in 80 communities.

The general findings of the survey were that the majority of diseases afflicting the population were related to poor water and sanitation. Specifically, diarrhoeal diseases were identified as one of the major causes of infant and child illness, malnutrition and death. The key contributing factors were related to improper food handling, preparation and storage as well as inadequate disease management. With regard to local priorities, there was a widely held view that water issues needed to be tackled urgently; in sharp contrast, sanitation was not a concern. When asked about possible action, however, respondents felt that securing any improvement in water and sanitation services was the responsibility of Government.

Some of the specific findings of the survey relating to water indicate that the most common sources are often unprotected. Popular concern is also far more focused on quantity rather than quality - in most cases, respondents assumed that what looked clean to the eye was also safe although water quality was found to be poor in all the communities visited during the survey. In the area of sanitation, it was found that faecal waste disposal in rural areas takes place mostly in the bush or open space. Unexpectedly, however, a large number of respondents, 53 percent, turned out to have used a latrine at least once, a quarter of whom claimed to have done so for hygienic reasons. Among the roughly 46 percent who had not used a latrine, about a quarter suggested that they had not done so simply because there is a lot of open space available.

On the basis of these findings as well as an assessment of policy and institutional factors, the survey report made a number of recommendations. At the broadest level, attention was drawn towards clarifying policy and strategy in the sub-sector; investing in human resources development; promoting increased community participation; and providing greater attention to the role of women. Concerning programming, the main suggestions were for strengthened community level activities, greater emphasis on information, education and communication (IE&C) and the use of school-based interventions. Concerning operational issues, the report called for the development of a viable operation and maintenance (O&M) system, increased use of participatory hygiene education and closer practical linkages between providers of water and promoters of improved sanitation and hygiene.

Fortunately, action is already underway to address some of these recommendations. An important component is the on-going formulation of an Eritrean Rural Water Supply and Environmental Sanitation Programme (ERIWESP), to be completed in 1997, which will establish a national framework for the sector. UNICEF and UNDP are jointly financing the project under the leadership of the Water Resources Department.

*Source: Nyamwaya, D., et. al., Report on Knowledge, Attitudes and Practices Relating to Water, Sanitation and Control of Diarrhoeal Diseases in Eritrea, Asmara, June, 1996.*

# Education

UNICEF ESARO / Giacomo Pirozzi

Children need at least five years of primary schooling to attain literacy, numeracy and some life skills. They need an education to acquire the basic skills and knowledge that will help them to gain self-confidence, become productive and tolerate differences. Achieving education for all can bring social and economic achievements to a higher level, permanently.

## The Colonial Legacy

Eritrea inherited its school system from colonial sources. The Italians introduced formal education but Eritreans were not allowed to go past the fourth grade, a level considered sufficient for local labourers serving the colonial administration. The British started the modern school system, doubling the number of schools and teaching in Tigrinya and Arabic, but the curriculum was academic, teaching few skills that met Eritrean needs and interests.

During the Ethiopian occupation, Amharic cultural and political aspirations dominated the curriculum, undermining Eritrean nationalism. Ethiopians replaced Eritrean teachers. The school system declined steadily. Classes were very large. Textbooks, exercise books, pencils, chalk and chalkboards were scarce. Standards were low and assessment procedures inadequate. Buildings were razed or converted into barracks for the Ethiopian army. By 1991, only 15 percent of primary schools were in a serviceable condition.

Meanwhile, in the liberated areas, the EPLF operated its own school system with 25,000 children attending 125 schools. Subjects were taught in local languages at the primary level and in English at higher levels. The EPLF also made attempts to revise the curriculum to reflect national and social needs. Eritrea's school system today has evolved out of the EPLF's approaches and methods.

## Primary Education as the "Cutting Edge"

Primary education is the chief means to meeting the learning needs of children and the necessary foundation for higher education and skilled employment. Since independence, the Government has assumed the costs of primary education, declared it compulsory for all children and implemented a secular national curriculum. It has also given each nationality the right to be taught in its own language at the primary level. In 1995-96, 363 primary schools taught in Tigrigna, 112 in Arabic, 26 in Tigre, 13 in Kunama and 17 in Saho. English is taught as a subject from grade 2 onwards.

***Enrolment, repetition and drop-out rates:*** Enrolment has grown at an average annual rate of about 13 percent since liberation but gross enrolment still only reached 52 percent in 1995-96. Urban areas have higher enrolments than rural areas and boys are better represented than girls. About 73 percent of students enrolled in grade one in

## Girl Child Education in Eritrea

Development planners today recognise both the magnitude of the problems afflicting girl child education and the enormous benefits foregone to individuals, families, communities and nations as a consequence. Indeed, data throughout this document clearly demonstrate the relevance of this issue in the particular context of Eritrea. In this country, the situation appears to be reassuring: the national gross enrolment ratios (GERs) for girls and boys in primary education stood at 47.5 percent and 57 percent, respectively, in 1995-96, yielding a country-wide average of about 52 percent; at the same time, the ratio of females to males among enrolled primary school students was 45:55. These figures, however, conceal considerable disparity by gender between different locations and in school performance. For example, the primary school GER in the former lowland provinces of Barka, Gash-Setit, Sahel and Dankalia was about 17 percent, 42 percent, 14 percent and 20.5 percent, respectively, in 1995-96 with the ratio of girls to boys ranging from 28:72 in Sahel to 43:57 in Gash-Setit. On the performance front, among the students sitting for the grade 7 National Examination in 1995, only 56 percent of the girls compared to 80 percent of the boys were promoted.

In recognition of these challenges, and guided by the impressive gender-focused strategies of the war of liberation, the Ministry of Education (MOE) has decided to promote girl child education in Eritrea. As part of this effort, research has been commissioned to study the issue, with funding from UNICEF (supported by CIDA) and UNESCO. The main findings, which are focused on the lowland areas of the country where the problem is most acute, are as follows:

- education is not a high priority at the community level and even within the sphere of education, the primary concerns are, for instance, the lack of schools, costs and poor facilities, not girl child education;
- the biggest obstacles to girl child education are cultural and religious in nature, focused on the loss of traditional values and, thus, diminished marriageability;
- both men and women agree on the importance of early marriage as a constraint to education but they differ in other ways, with the former emphasising the potential loss of values and the latter factors such as cost, poverty and lack of schools and facilities;
- both men and women want their girl children to follow traditional roles and "gender appropriate" work whereas girls themselves hold considerably less conventional views;
- men are the decision-makers on schooling issues;
- the receptiveness of communities to girl child education increases according to ethnicity ("mixed" rather than homogeneous), semi-urban or urban influence and the prevalence of a non-nomadic economy; and,
- finally, the solutions for increased girl child education offered by communities themselves call for more female teachers, availability of schools, single-sex schools, adult education and provision of water supply.

Based on these findings, the research report suggested the following recommendations: training and deployment of more female teachers in rural areas; reduction of distances to school: piloting of single-sex classrooms/schools; alternative education for older girls who have not been to school; reduction of girls' workload; adoption of flexible timetables; development of community sensitisation programmes; strengthening of community involvement in the financing and management of primary education; and, last but not least, intensification of cross-sectoral cooperation in support of community action. The identified problems and recommendations were discussed at a National Workshop on Girl Child Education held in Asmara on 27-28 September, 1996. Its outcome will now be considered by the MOE in its plans for a long-term response to the issue. UNICEF will assist in this regard with the help of funding from CIDA and NORAD.

*Sources: MOE, Eritrea: Basic Education Statistics and Essential Indicators, 1994-95, Asmara, November, 1995.*
*Kane, Eileen, "But Can She Eat Paper and Pencil?", Girls' Education in Five Provinces of Eritrea, Asmara, September, 1996.*

1995-96 were over-age. Approximately, 1 in 5 students repeats a class in any particular year. Drop-out rates are also believed to be high at the primary level suggesting that as few as half of those entering grade 1 actually complete grade 5.

It is not enough to get children into school. They must also be persuaded to stay there. Children drop out of school for the same basic reason - because they or their parents judge that the opportunity costs are greater than the benefits gained. Where the quality of education is low and the costs high, children lose interest and quit to work in the fields and markets. For enrolment to rise to high levels, and stay there, enrolled students must be seen to succeed, in school and in life.

***Teachers:*** There are about 5,828 primary school teachers in Eritrea - one for every 41 students. Almost two-thirds are male. Many teachers were rushed into service when the war ended and Ethiopian teachers left the system. The Ministry of Education (MOE) estimates that in 1994-95, more than 50 percent of teachers in primary education were unqualified; it hopes to remedy this problem in part through the launching of a major distance learning project. Motivation is generally quite high but with low salaries and unappealing living conditions, teachers have difficulty performing to their full potential. The school inspectorate is also weak. Inspectors are poorly trained, ill-equipped and without any real authority.

**Primary Schooling (Grades 1–5) in Eritrea (1995-96)**

| | | |
|---|---|---|
| **School age population (7-11)** | **Total** | **463,086** |
| | Female | 228,093 |
| | Male | 234,993 |
| **Gross enrolment** | **Total** | **241,725** |
| | Female | 108,254 |
| | Male | 133,471 |
| **Net enrolment** | **Total** | **133,496** |
| | Female | 63,538 |
| | Male | 69,958 |
| **Gross enrolment ratio** | **Total** | **52%** |
| | Female | 47.5% |
| | Male | 57% |
| **Net enrolment ratio** | **Total** | **29%** |
| | Female | 28% |
| | Male | 30% |
| **Teachers** | **Total** | **5,828** |
| | **Female** | **2,025** |
| **Pupil-teacher ratio** | | **41:1** |
| **Primary Schools** | **Total** | **537** |
| | **Govt.** | **442** |
| | **Non Govt.** | **95** |

*Source: Ministry of Education, 1996*

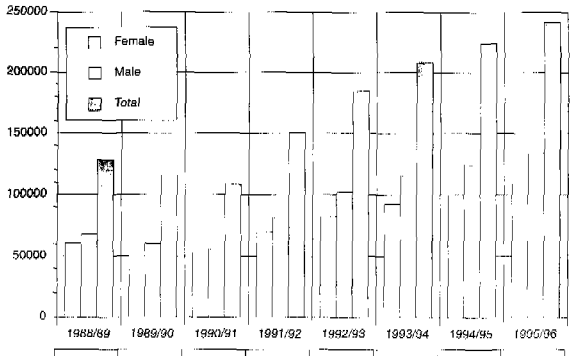
***Facilities and equipment:*** In 1994-95 less than 50 percent of primary school buildings were in good condition. The remainder were badly damaged or deteriorated. Only 5 percent had a clinic, 11 percent a library, and 43 percent a storeroom. Seats, desks, chalk, blackboards, and exercise books are in short supply. Textbooks are scarce and the few that exist are poor. This is especially unfortunate. Reading materials are needed to achieve permanent literacy and numeracy. Without books, there will be merely rote-learning, not reading for information or for pleasure.

## Secondary and Tertiary Education

Gross enrolment in junior secondary school is about 26 percent, with more than 70 percent of students over-age. As in primary school, the female share of enrolment trails that of males, 45 percent to 55 percent. One reason for low enrolment is low primary school completion. Another reason is lack of enrolment capacity which forces some primary school finishers out of the system after grade 5. In senior secondary school, the gross enrolment rate drops to 15.5 percent and the female share of enrolment at this level is just 40 percent!

After grade 10, a student may enrol on a competitive basis for 1 to 3 years of technical school. After grade 11, teacher training or university is a possibility. Female enrolment at these levels ranges from 10 to 12 percent. It will soon be possible to enter vocational school after grade 7. Today, only 4 out of 100 children starting grade 1 will finish grade 11: the others drop out or are forced out due to limited places in the school system.

**Trends in Gross Primary School Enrolment, 1988-96**




| | 1988/89 | 1989/90 | 1990/91 | 1991/92 | 1992/93 | 1993/94 | 1994/95 | 1995/96 |
|---|---|---|---|---|---|---|---|---|
| Female | 60593 | 55782 | 53020 | 69324 | 82356 | 92536 | 99743 | 108254 |
| Male | 67911 | 60087 | 56067 | 81546 | 102136 | 115663 | 124544 | 133471 |
| Total | 128504 | 115869 | 109087 | 150870 | 184492 | 208199 | 224287 | 241725 |

*Source: Ministry of Education, 1996*

## Adult Literacy

Eritrea confronts a major obstacle to its development – 80 percent of men and 90 percent of women are illiterate. Those who are literate are mainly found in the highland regions, where educational opportunities are greatest.

Adult literacy classes – in local languages – are being offered by the Ministry of Education and the National Union of Eritrean Women (for women only), but their reach is limited. Courses focus primarily on basic literacy and numeracy, with some attention to hygiene, sanitation, and agriculture. Skills training is introduced later as a post-literacy activity. Literacy readers are rare, though teachers usually have one. Other reading materials are also scarce.

Drop-out rates are high. To retain students, literacy classes must provide an immediate benefit. Otherwise they will not compete successfully for students' time. Linking literacy with skills training and income generation may accomplish this. Classes should be targeted towards people who are motivated, such as adolescents who left school early and are now seeking a non-formal "second chance".

### A Community School in Adi Khotoyo

On the road running south through the mountainous highlands from Asmara to the Ethiopian border, in the village of Adi Khotoyo, 85 kilometres away from the capital city, stands a long stone and brick building with a tin roof. Two large rooms, flanking a central foyer, are filled with children, 6 to 15 years old, almost evenly divided between boys and girls.

Some 70 of the younger children are in one room, squatting on rows of rocks they have placed on the floor, in the absence of any furniture. In the other room, about 90 older children between ages 9 and 15 sit on tightly placed rows of benches and desks. This is the community-initiated primary school of Adi Khotoyo, which currently has only the first grade, in which all 160 children are enrolled.

The only visible learning aid in the school is a rather small blackboard hanging on the wall in front of the children in each of the two rooms in the building. An arithmetic exercise with simple (single digit) addition problems is shown on the blackboard in the room with the older children. Some of the children have an exercise book and a pencil, but none has a text-book.

## A Mirror of History

The whitewashed school building with a large fenced-off ground abuts a bend in the road to the border. It overlooks a deep narrow valley and a steep ridge on the other side which many children cross daily to come to the school.

The building itself is a mirror of the recent turbulent history of Eritrea, as an old man from the village informed the team of visitors from the city. Built before the Second World War by the Italians, the colonial rulers at that time, it was first a health centre. After the war, when the British inherited the administration from the defeated Italians, the building became a customs collection post because of its proximity to the Ethiopian border. During the liberation war against the military regime of Col. Mengistu, the building became a garrison post for the Ethiopian army. Since 1993, reflecting the development priorities of independent Eritrea, the building had been turned into a community school.

## Self-Appointed Teachers

Naizghi Gebre-Michael, the cheerful and enthusiastic 32 year-old teacher, a former freedom fighter in the Eritrean People's Liberation Front (EPLF), with the help of a woman colleague and encouraged by the goodwill of the parents in the village, had opened the school in 1993. The two teachers, who had completed 11th grade of high school but had no pedagogy training, initially taught four classes, two each for children in grades 1 and 2, organised into two shifts. The female member of the team, however, was called to perform national service. Mr. Naizghi explained to the visitors that he now taught two shifts comprising only grade 1 students.

## Admission by Lottery

The community-initiated school in the highland village of Adi Khotoyo sprang up in response to demand from parents for their children's education. The nearest government primary school is 5 kilometres away in the town of Adi Quala. It is a standard primary school with five classrooms and a teacher for each class; but it does not have room for all applicants. "The primary school has set quotas for how many children it can take from the neighbouring villages and they are admitted by lottery, leaving many children out," Mr. Naizghi informed the visitors.

The parents of the first graders in the community school pay Birr 2 (US$ 0.30) per month per child and are supposed to buy their children's textbooks, exercise books and pencils that may cost Birr 4 or 5 a month. These are not small sums for an average rural family with an income of Birr 50 a month and a norm of two or three school-aged children in a family.

Many of the 160 children in the school walk long distances. They come from Adi Khotoyo as well as seven other villages, the farthest one located over 10 kilometres away. Mr. Naizghi said that his students, after completing the first grade, will seek admission in the government schools in Adi Quala or other towns. "There are dropouts between grades 1 and 2 in the government school. There are, therefore, a few places in grade 2. But it is not certain that all of my pupils will have a place in the second grade of the primary school," said the teacher. Yet, the children come to the community school six days a week, some walking three hours each way.

The remarkably well-behaved children sit quietly for hours in a tightly-packed room, dutifully listening to the teacher or copying the writing from the blackboard. There is hardly much opportunity for other "learner-centred" teaching approaches in a class of 90 children, even if Mr. Naizghi knew of other methods or had the teaching aids or materials for other activities.

## Government-Community Partnership

The highland region of Debub (Southern Region), where Adi Khotoyo is located, has a total population of more than 600,000. In early 1997, about 84,000 children were enrolled in 161 primary schools. The Regional Education Office estimates that some 20 community-initiated schools had been set-up in recent years in the region in response to parents' demands for their children's education. Many of the community-initiated schools are, however, in rented private houses and do not, unlike the facility at Adi Khotoyo, have an environment conducive for schooling. Fortunately, seven (standard) primary schools were also either rehabilitated or built by the government in 1996, with international assistance; another two were budgeted to be established in 1997.

The experience of Adi Khotoyo and other similar communities raises some interesting questions for the future of primary education in Eritrea. For instance, could the education authorities work in partnership with communities so that each community could find a proper place for a school and appoint a teacher, supported by a modest financial grant from the government for the teacher's remuneration as well as essential learning aids? Could the experienced and trained teachers in government schools offer advice and simple training on teaching methods to the teachers in community-initiated schools? Could the authorities plan in advance how the children from the community schools could be accommodated in grade three of the government schools? Could there be more of the community-initiated schools so that the classes are of manageable size and the children do not have to walk long distances?

It is just possible that the community schooling approach, combined with the setting up of more standard government schools, could be an important way to meet growing demand for primary education, in the Southern Region and the country in general - a point to ponder for Eritrean educational authorities and their external partners.

By Manzoor Ahmed, Special Assistant to the UNICEF Executive Director.

# Children in Especially Difficult Circumstances (CEDC)

CEDC are children whose survival and/or development is threatened because they are deprived of care or protection. This is because their rights to basic needs such as food, shelter, education, medical care and security are not being met.

In Eritrea, CEDC are categorised into the following groups: orphans; street and working children; children with disabilities; children out of school; members of female-headed households; returning refugees; juvenile delinquents; and internally displaced people.

It is expected that 1997 will be the year during which information on the situation of children in especially difficult circumstances will be expanded and updated, with a particular focus on orphans including returnees from the Sudan and HIV/AIDS orphans.

## Orphaned Children

According to a national survey conducted during 1992-93, there were about 90,000 registered orphans in the country. It is widely believed, however, that the figure could be well over 100,000 when Eritreans in refugee camps in the Sudan and others outside the country are fully taken into account. Reunifying orphans with their extended families rather than institutionalising them is the policy option adopted by the Government.

This approach has been positively supported by assisting agencies, such as UNICEF and NGOs, working in the best interests of the orphaned children. The Government's intention is to phase out existing orphanages and, to this end, one has already been closed down. Nevertheless, the initiative so far taken is relatively limited: only about 10,000 orphans have been reunified with their extended families, a process also supported by the provision of income-generating assets to eligible orphan-caring families in order to strengthen their economic capacity. This number is a meagre 10 percent of the estimated number of orphans - in other words, just the tip of the iceberg. In the meantime, orphans who are not yet reunified with their extended families continue to remain in orphanages.

## Street and Working Children

Streetism is a relatively common phenomenon among children in urban areas globally. As many as 5,000 children are estimated to be in this category in Eritrea, based on the findings of a study carried out in 1992. About 1,800 of them are located in Asmara, Keren, Massawa, Mendefera and Assab. Another study is expected to be launched in 1997 to update information on the situation of street and working children in the major towns of the country. It is anticipated that this effort will lead to the development of appropriate assistance programmes.

Reunifying children in this category with their families is also a response being considered by the Government. By mid-1994, about 400 street children in Asmara had been reunified with their immediate families. In order to strengthen the process and improve prospects for adequate care-giving, some assistance was also provided to the recipient families together with school materials for the children themselves.

Reflecting the gender dimension of the problem, a study focused on street girls and prostitutes was implemented in 1992 involving 298 respondents. It showed that 56 of them were between 13 and 17 years of age, 81 were illiterate, 36 had studied in grades 1 to 3, 71 in grades 4 to 6, another 71 in grades 7 to 9 with the remaining 39 having reached between grades 10 to 12. One hundred of the girls were school dropouts or had not gone to school for reasons of poverty, 23 had gotten married, 24 were forced to leave school due to family pressure, and 12 had simply lost interest in going to school.

## Children with Disabilities

During the 30-year war of liberation, Eritreans were victims of systematic and non-genetic disabling factors including wanton shooting, aerial bombardment, mine explosions and torture in prisons, thus, contributing to an un-natural increase in the number of physically and mentally disabled persons. Unfortunately, those with disability suffer from stigmatization and lack of access to the services which could help them to develop their capacities, find sustainable livelihoods and achieve better integration with their communities and society.

Children with physical disabilities are usually considered a burden to their families and society. A study conducted in 1992 revealed that there were 6,886 children with disabilities in Eritrea representing 16 percent of the total number of people in this category. Of these children, 1,866 were blind, 1,708 were deaf, 1,435 were amputees, 1,414 had other physical deformities while another 473 suffered from mental disability.

It is a cause for great concern that the number of children with disabilities could actually be rising due to injuries received from the explosion of anti-personnel mines still scattered around the country despite considerable mine clearance operations. The problem could be minimsed through improved awareness on the dangers of landmines but this effort has been hampered by a lack

of resources. Care-giving institutions for disabled children are limited in number and quality. They include only one school for the blind, with a capacity for 350 children, and two schools for the deaf, one in Asmara holding about 60 students and the other in Keren with 82 students. Out of the 350 blind children, only 50 are receiving the necessary standard of education. Finally, there are two orthopaedic workshops, one each in Asmara and Keren. These and other facilities are badly needed to ensure that eligible children receive optical correction glasses and hearing aids, prostheses, orthoses and other adaptation components, to help them in taking care of themselves and leading fuller lives.

## Juvenile Delinquents

A study on juvenile delinquents has just been completed and is expected to be published soon. In addition, for the first time in independent Eritrea, Probation Officers have recently been provided training for three months on issues of juvenile delinquency. Other participants in this training course included social workers from the Ministry of Labour and Human Welfare, judges from the Ministry of Justice and members of the Police Commission.

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# The Changing Status of Women

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## Social Status

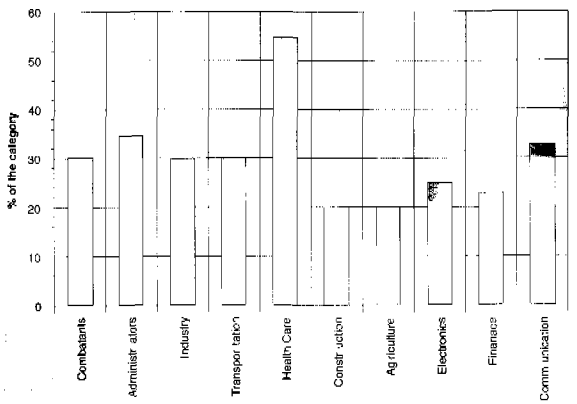
In traditional Eritrean society, a female's status depends on her father or her husband. A girl is expected to get married at a young age. If she has been going to school, she drops out and leaves her parents to move in with her parents-in-law. She is expected to remain faithful and obedient, even if her husband is not, and she is expected to bear children. If children are not forthcoming, she will be blamed and the marriage may end in divorce. While a divorced man can be remarried without stigma, this is rarely possible for a divorced woman. Hence, women trapped in abusive or loveless marriages usually remain in them.

## Women in the EPLF

In 1990, 30 percent of EPLF combatants were women. They commanded EPLF battalions, drove tanks and undertook guerrilla activities. In EPLF-held areas, they worked as doctors, teachers, mechanics, administrators and factory workers. EPLF training programmes discriminated in their favour.

With women working in non-traditional jobs, traditional perceptions of their roles were bound to change. Working women found it impossible to return to old ways of life once the fighting ended. But discriminatory expectations remain strong. While the EPLF women will probably resist any loss of their freedoms and opportunities, success (if it occurs) will not automatically reach all Eritrean women.

### Women's Participation in the EPLF




*Source: Selassie in Doornbos et al., 1992; Marando and RICE, 1987.*

## Women in the Labour Force

The gender division of labour is the main cause of the low socio-economic status of women. As mothers and homemakers, women do work that is not valued in the wider economy. Yet women are large contributors to its total product.

Women's work varies along class, cultural and religious lines. In some Muslim pastoralist communities, women are largely confined to their huts, where they process food and engage in petty industry. On Christian farms, women weed and harvest the fields but do not plough or sow. They also grind grain, cook and clean, fetch water and firewood, care for children, go to the market, and sell smallstock. Most women are not educated, so they have few marketable skills: mat-weaving, basket-making, and selling drinks (such as local beer or *suwa*) or *injera*. Since women are often trained in the same skills, they compete directly with one another, driving down prices and depressing their incomes. Moreover, they may not control their incomes: men generally have spending power over the bulk of the household's revenues.

In the urban economy, there are no legal restrictions on women's employment yet women participating in industry and trade continue to have low levels of representation in senior technical and administrative positions. According to the EDHS, only 5 percent of employed female household members aged 10-64 years were in the professional/technical or managerial categories; most were in clerical/sales/service (28 percent), agriculture (52 percent) or production-related categories (15 percent).

Finally, "equal pay for work of equal value" also remains an elusive goal. Once again, the EDHS shows that about 17 percent of female household members 10 years and older had been employed in the month preceding the survey; however, in more than half the cases, this had taken the form of unpaid work.

Women's ability to make headway in the world of work is often limited by poor education or skills and lack of information about market opportunities. Data from the EDHS reveal that a very large proportion of women, especially in rural areas, have not had any education; while the national figure is 39 percent for those in the 15-19 age bracket, it rises steadily to a daunting 85 percent for those 40-44 years of age and an astonishing 97 percent for older women, between 60-64 years of age. The comparable figures for men are 27 percent, 66 percent and 86 percent, respectively.

Information from the same source suggests that more than half of women between 25 and 49 years of age do not have access to any media; as usual, conditions are far worse in rural areas. In the case of men, the figures range from a low of 12 percent in the 20-24 age bracket to a peak of 41 percent for those between 55-59 years of age. Not surprisingly, this phenomenon is closely related to educational status: whereas 64 percent of women without education are also left without access to any media, the proportion drops precipitously even for those with incomplete primary education (16 percent), becoming progressively lower with higher educational qualifications (primary complete – 4 percent; secondary plus – 1 percent).

## Women in Politics

In 1987, 30 percent of the delegates to the EPLF's Second National Congress were women. In independent Eritrea, there were 22 women members of the National Assembly and two women cabinet ministers (Justice and Tourism) in 1995. Twelve women were members of the Central Council and three were also members of the Executive Committee of the Popular Front for Freedom and Democracy (PFDJ, formerly the EPLF). In addition, Eritrean laws require that women constitute at least 30 percent of legislatures at all levels without prejudice to their access to the remaining 70 percent of non-reserved seats. It is a sign of the times that a woman has recently been chosen as mayor of the former provincial capital of Akeleguzai.

## Legal Reforms Affecting Women

In 1987, the EPLF aimed to "assure women full rights of equality with men in politics, the economy and social life". Some progress has occurred since then.

**Agrarian Land Reform:** In 1992, the Government assumed sovereignty over all land in Eritrea. In 1994, it introduced a system of land tenure granting every adult Eritrean a life-time right to use land. This unfortunately does not guarantee a woman's ability to work it. Cultural norms may prevent a woman from clearing and ploughing land – a man must perform this critical task for her. In addition, many women are unable to own livestock (including draught animals), further restricting their food production. Their access to essential agricultural services and inputs (research and extension, credit, marketing, implements and fertilisers) is also extremely limited.

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**Marriage Law:** Traditionally, male elders pursue family alliances by betrothing girls below the age of 15. Girls have no voice in the choice of a partner. They are expected to be virgins when married and monogamous afterwards. Pre-marital virginity testing is common. Marriages typically involve the transfer of a dowry or bride-wealth. In Muslim marriages, polygyny is a male right. Because marriage is an alliance between families, divorce is a public affair, where women have little say.

In 1977, the EPLF Marriage Law implemented a "democratic marriage law, based on the free choice of both partners, monogamy, the equal rights of both sexes, and legal guarantees of the interests of women and children". The minimum age of marriage was raised to 18. Concubinage, child betrothal, and interference in the remarriage of widows were abolished. Women were allowed to initiate divorce and granted a share of the husband's property when divorce occurred. Child support was mandated if the woman obtained custody of the children. Unfortunately, implementation of this gender-equalising law was not uniform, even in the liberated areas.

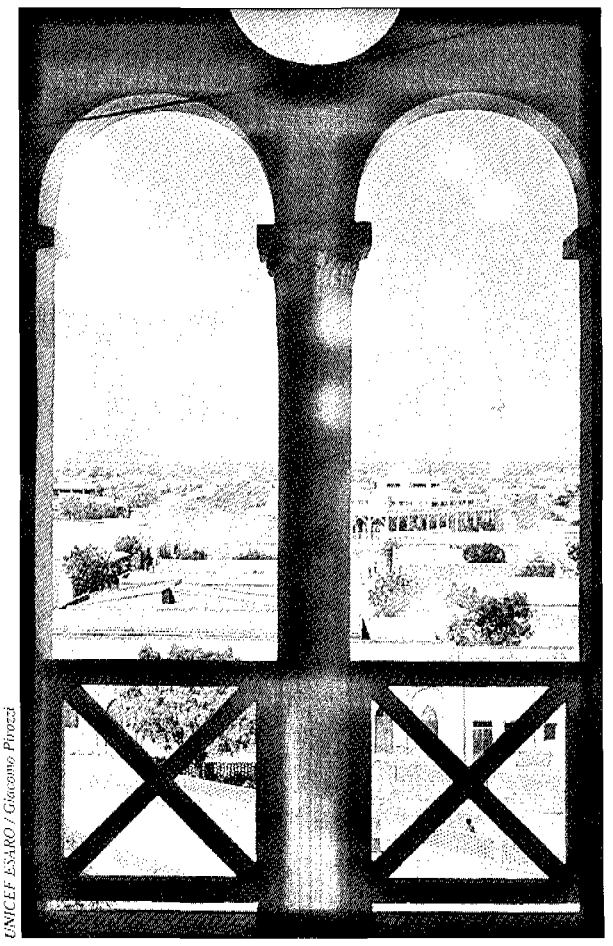
**The Convention on the Elimination of All Forms of Discrimination Against Women:** Eritrea has recently acceded to this Convention. While this will help to raise the status of women, it will not end discriminatory practices embedded in custom. A woman whose husband beats her may have a civil remedy, but she is unlikely to exercise it. Instead a traditional or *shari'a* court will remain the first avenue of redress. In this court, traditional patriarchal rules are likely to apply.

# Political Structures

## Government is Evolving

Three basic principles underlie Eritrea's political structure: democracy, decentralization, and guaranteed representation of minorities (especially women). To this end, a Proclamation on Local Government (86/96) issued in 1996 reorganised the sub-national administrative system of the country into six regions, 56 sub-regions and 652 village administrations (grouping together 2,686 villages). Prior to this decision, there had been ten provinces sub-divided into 166 districts and 2,365 villages.

The Proclamation established executive, judicial and legislative branches of government at regional and village levels, and only the first two at the sub-regional level. The Regional and Sub-Regional Administrators are to be appointed by the central government and the village administrators by the Regional Administrators. Considerable authority has been granted to the new regions to prepare, fund and implement their own development plans as well as provide services such as basic education, primary health care and water supply and sanitation. As a result, the national level is increasingly expected to concentrate on matters of policy, strategic planning, establishment of countrywide standards and norms, technical assistance and training. Nevertheless, despite this important change in the responsibilities of local governments, they are expected to continue to rely for some time on the central government for most of their financial resources.



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At the national level, there is a 120-member National Assembly which forms part of a transitional government which is overseeing the drafting of a new constitution and is expected to disband in 1997. There are also 18 ministries – including Finance, Justice, Agriculture, Health, Education, Energy and Mines, Land, Water and Environment, Labour and Human Welfare and Local Government – and the Office of the President. The number and functions of governmental institutions are, however, likely to change as a result of an on-going restructuring exercise. After the new constitution is ratified, national elections are expected. Anticipating this event, the EPLF has been renamed the *People's Front for Democracy and Justice* and has started to separate the party from the government.

### The Draft Constitution of Eritrea

The draft Constitution declares Eritrea to be a unitary state with both regional and local governments, seeking "unity in diversity", and striving towards democratic, socially just and sustainable development. The state structure itself has been divided into a unicameral National Assembly, directly elected by the people, an executive branch headed by a President indirectly elected from the National Assembly and a judiciary composed of a system of lower courts with a Supreme Court at the apex. Details concerning the operation of the state structure have been left for determination by appropriate laws at a later stage.

One of the most interesting features of the draft Constitution is its emphasis on economic, social and cultural issues in the chapters on national objectives and directive principles as well as freedoms, rights and duties. There is an explicit mention of the equality of sexes vis a vis Constitutional provisions (Article 5) and a Democratic Principle (Article 7/2) which states that "Any act that violates the human rights of women or limits or otherwise thwarts their role and participation is prohibited."

Article 11 on National Culture notes that the State shall encourage the values of community concern and love and respect of the family while Article 22 specifically refers to the family as the natural and fundamental unit of society entitled to the protection and special care of State and society. It also notes the responsibility of parents to bring up their children with care and affection while also emphasising the reciprocal obligation of children to respect their parents and sustain them in their old age. The most comprehensive statement of commitment to social development is in Article 22 which says that every citizen shall have the right of equal access to publicly funded services, that the State shall make available to all citizens health, education and other social services (within resource limitations) and, last but not least, secure the social welfare of all citizens, especially the disadvantaged, again within the bounds of resource constraints.

*Source: Constitutional Commission of Eritrea, Draft Constitution of Eritrea, Asmara, July, 1996.*

The draft Constitution, which was completed in July, 1996, has been subjected to public consultation. Finalisation and approval will be the responsibility of a Constitient Assembly composed of members from the National Assembly and six Regional Assemblies as well as 75 representatives from Eritreans living abroad.

In the version published in July, the text establishes the directive principles of the state, delineates the institutional framework for governance and spells out basic rights and responsibilities of citizenship. The document is noteworthy for its emphasis on the equality of the sexes and the role of the family as well as recognition of broad economic, social and cultural rights.

## Human Resources are Scarce

The war left a mixed legacy in human resources. On the one hand, intellectuals and professionals were detained, exiled or killed and leading positions in government and industry were taken by Ethiopians or their sympathizers. As a result, the skills of Eritrean administrators atrophied. On the other hand, the EPLF developed a skilled and disciplined cadre which is motivated, energetic and able to mobilize people to achieve social aims – a critical component of effective government. Thousands of ex-fighters are now active in Eritrea's reconstruction. They are the entrepreneurial backbone of the new Eritrea. Even so, the country confronts severe shortages of people able to run a modern bureaucracy or industrial plant. Its schools may not be able to bring people up to the required capacities. Real talent in finance, management, information technology and other critical areas will be limited to senior people. Some help may come from the Eritrean diaspora, which includes 150,000 professionals. Eritreans abroad provided important support during the struggle. They continue to help today. Some estimates suggest that private remittances from abroad may have amounted to more than US$ 200 million in 1995.

# Economic Structures

## Agriculture is the Most Important Sector

A very high proportion of Eritreans, 80 percent, is engaged in agriculture, but productivity is low. Farming, fishing and herding contribute to a varying share of gross domestic product (GDP) ranging from 11-16 percent in recent years. Moreover, Eritrea is not self-sufficient in food production. In 1992, near-record yields met only 70 percent of Eritrea's food needs. The 1991 and 1993 harvests were less than one-third that size. National food security depends on the ability to acquire food abroad. This in turn depends on international market forces, which Eritrea as a small "price taking" economy cannot control. Food aid, carefully managed, is another route to food security.

**Farming:** Most farming takes place in the central highlands and southwestern lowlands. In the highlands, barley, wheat, beans and chick peas are grown in the higher altitudes; taff and sorghum in the lower. Highland farmers have small farms (0.6 to 0.8 hectares). Overpopulation, land degradation, outdated technologies and poor land use practices keep yields below subsistence levels. In the southwest, sorghum, maize, millet and sesame are the main crops. This is an area with good soils and 400 mm of annual rainfall, hence, productivity is relatively high.

There are two government-run irrigated farms – the 135 hectare Elaberet farm on the Anseba river and the 1,800 hectare Alighider farm on the Gash river. There are also privately-run irrigated farms on the Barka and Gash rivers. Cotton is grown at Alighider. Fruits and vegetables are grown at Elaberet and on private farms. These crops were sold abroad in the 1970s and may be exported again.

By improving pest control, using fertilizers, expanding sustainable irrigation, improving soil and water conservation, using fast-maturing drought-resistant crops and increasing access to credit, yields may rise on the 440,000 hectares of land now cultivated. Land tenure systems have already been reformed to grant farmers a lifetime tenure as an incentive to improve their land. Long-term gains will depend on expanding rainfed agriculture into the 1,000,000 hectares available in the southwestern lowlands, where the climate is inhospitable and infrastructure severely limited.

**Herding:** In 1992, Eritrea's livestock population included 1.3 million cattle, 4.2 million goats, 850,000 sheep, 190,000 camels and 4.0 million poultry. Draught oxen, sheep and goats are found among farming families in the highlands. Lowland families herd sheep, goats, cattle and camels and sometimes keep small riverine farms. Beef production reaches 13,000 tons a year, sheep and goat production 10,000 tons and poultry 3,000 tons. This amounts to 10 kg per person per year. At present, low offtake rates – 10 percent for cattle and 20 percent for goats and sheep – keep meat prices high. At the same time, small-scale production limits milk consumption per person to about 15 litres and egg consumption to about 20 a year.

In the short-term, improved animal husbandry and disease control could increase livestock numbers and so increase meat, egg and milk production. It would also permit some exports. In the long-term, increased production may be achieved by improving the stock and expanding forage opportunities.

**Fishing:** The long Red Sea coast, which includes the Dahlak archipelagos and other islands, provides not only prospective tourist areas but also rich fishing grounds. Lobsters, oysters, shrimp, tuna, red snapper and sardines are abundant. Though 23,000 Eritreans were fisherman in the 1950s, there are only about 2,000 today. The war dispersed the fleet and destroyed fish-handling facilities in Massawa. As a result, fish production has declined to 1,000 mt per year or less than 4 percent of the yield in the 1950s and less than 2 percent of the sustainable yield. Efforts are being made to revive this industry and promote fish consumption.

Higher fish production could also create export opportunities but will require large investments to rehabilitate ports, roads, and processing and storage facilities. Maximally exploited, revenue derived from fisheries could reach US$ 55 million per annum.

## Industry has Room to Grow

Industry contributes about 20 percent of Eritrea's GDP. A large proportion of industrial output, however, comes from just one source – the Assab oil refinery, which refines about 700,000 mt of imported crude oil a year, 200,000 mt for Eritrea and the rest, by agreement, for Ethiopia.

Eritrea is historically a trading nation. Before the Ethiopian occupation, US$ 100 million a year was earned from exports. But industry suffered during Ethiopian rule, both from the destruction of war and the negligence of the Ethiopian administrators. Most large businesses were nationalized in 1974. Some were relocated to Ethiopia along with the personnel needed to operate them. Others were forced to close as a result of shortages of raw materials, spare parts, working capital and foreign exchange. Those remaining open had obsolete equipment and operated far below capacity. Frequent electrical outages may have cut production by 30 to 50 percent a year. Skills atrophied and market connections vanished. By 1992, export earnings had dropped to US$ 2 million.

Rebuilding trade will depend on rebuilding industry, particularly export industries such as salt, glassware, textiles, ceramics, leather

and leather products. The Government is already trying to create a macroeconomic environment intended to encourage private investment and export-led growth. In place of the centralized and planned economy that the Ethiopian government imposed, the Government of Eritrea has stated its preference for decentralized and market-based forms of economic organisation. Import tariffs have been sharply reduced, the exchange rate has been made competitive and the tax regime has been liberalized (with the result that the Government collects about a third of GNP in revenues -- a very high proportion by developing country standards, especially given the narrow base for taxation). Restrictions on the hire of private labour have been lifted. Capital, foreign exchange, parts and materials are more easily obtained. Massawa port and the Massawa-Asmara-Keren road are under repair. Nonetheless, more needs to be done, especially to improve property and commercial law, to support small-scale industry, strengthen private sector confidence, attract foreign direct investment and strengthen the market orientation as well as broaden the ownership of large public enterprises.

*UNICEF ESARO / Giacomo Pirozzi*

# A Profile of Regional Development

| Indicators | Gash-Barka | Anseba | Southern | Central | N. Red Sea | S. Red Sea |
|---|---|---|---|---|---|---|
| Total Population | 517,261 | 379,385 | 636,759 | 490,457 | 362,583 | 244,607 |
| Number of Households | 129,315 | 94,846 | 159,190 | 122,615 | 90,646 | 61,152 |
| Number of Villages | 842 | 376 | 1,076 | 102 | 223 | 67 |
| **Infant (<1) and Child (<5) Mortality** | | | | | | |
| [Unadjusted rates for the ten year preceding the Eritrea Demographic and Health Survey/EDHS; deaths per 1000 live births]* | | | | | | |
| Infant Mortality Rate (IMR) | 87/1,000 | 70/1,000 | 71/1,000 | 57/1,000 | 93/1,000 | 107/1,000 |
| Under-Five Mortality Rate (U5MR) | 190/1,000 | 146/1,000 | 146/1,000 | 92/1,000 | 187/1,000 | 239/1,000 |
| **Child Nutritional Status** | | | | | | |
| [Percentage of children under three years of age who are below -2 standard deviations/SDs from the median of the NCHS/CDC/WHO international reference population] | | | | | | |
| Height-for-Age (Stunting) | 41 | 45 | 35 | 32 | 47 | 35 |
| Weight-for-Height (Wasting) | 23.5 | 15 | 15 | 8 | 22 | 23 |
| Weight-for-Age (Underweight) | 53 | 47 | 40 | 32 | 55 | 41 |
| **Prevalence and Treatment of Illness Among Children** | | | | | | |
| [Percentage of children under three years of age who were ill with the disease during the 2 weeks preceding the EDHS] | | | | | | |
| Acute Respiratory Infections (ARI) | 29 | 21 | 21 | 21.5 | 21 | 34 |
| Diarrhoea | 30 | 15 | 26 | 16 | 23 | 39 |
| Treatment of Diarrhoea | | | | | | |
| ORS Packet | 27 | (27) | 25 | 61.5 | 41 | (41) |
| Recommended Home Solutions (RHS) | 21 | (7) | 5 | 15.5 | 8 | (18) |
| Either ORS or RHS | 38 | (27) | 28.5 | 64 | 43 | (45) |
| **Vaccination of Children** | | | | | | |
| [Percentage of children 12-23 months of age who had received specific vaccines by the time of the EDHS] | | | | | | |
| BCG | 30 | 59.5 | 71 | 98 | 32 | (22) |
| DPT3 | 15 | 36 | 60 | 90 | 24 | (22) |
| OPV3 | 16 | 25 | 59 | 90 | 24 | (22) |
| Measles | 20 | 53.5 | 56 | 91 | 28 | (22) |
| All | 10 | 24.5 | 49 | 85 | 20 | (22) |
| **Maternal Health and Nutrition** | | | | | | |
| [Percentage of women who had a birth in the three years preceding the EDHS, for nutritional status; percentage of births in the 3 years preceding the EDHS, for vaccination status of the mother] | | | | | | |
| Body Mass Index (BMI) < 18.5 ($kg/m^2$) | 52 | 47.5 | 38 | 25 | 43 | 64 |
| Tetanus Vaccination | | | | | | |
| None | 77 | 72.5 | 71 | 30 | 75 | 74 |
| TT1 | 7 | 8 | 10 | 18 | 6 | 6 |
| TT2+ | 14 | 19 | 19 | 50 | 17 | 12 |

| Indicators | Gash-Barka | Anseba | Southern | Central | N. Red Sea | S. Red Sea |
|---|---|---|---|---|---|---|
| **Antenatal Care and Delivery Services** | | | | | | |
| [Percentage of births in the three years preceding the EDHS] | | | | | | |
| Source of Antenatal Care | | | | | | |
| No one | 61 | 53 | 57 | 14 | 62 | 67 |
| Doctor | 23 | 23.5 | 22 | 43 | 15 | 26 |
| Nurse/Trained Mid-Wife | 15 | 23 | 21 | 43 | 23 | 2 |
| Traditional Birth Attendant (TBA) | <1 | - | - | <1 | <1 | 2 |
| Place of Delivery | | | | | | |
| Health Facility | 7 | 11 | 11 | 53 | 8.5 | 14 |
| Home | 93 | 89 | 89 | 47 | 91 | 83 |
| Assistance During Delivery | | | | | | |
| Doctor | 3 | 2 | 6 | 26 | 3 | 1.5 |
| Nurse/Trained Mid-Wife | 8 | 12 | 6 | 31 | 11 | 21 |
| Traditional Birth Attendant (TBA) | 63 | 54 | 56 | 35.5 | 57 | 68 |
| Relative/Other | 22 | 30 | 31 | 7 | 27 | 7 |
| **Availability of Health Facilities: Numbers and Ratios to Population** | | | | | | |
| Hospitals/Mini-Hospitals | 3 (1:172,000) | 3 (1:379,000) | 5 (1:127,000) | 6 (1:82,000) | 4 (1:91,000) | 1 (1:245,000) |
| Health Centres | 13 (1:40,000) | 8 (1:47,000) | 8 (1:80,000) | 8 (1:61,000) | 9 (1:40,000) | 2 (1:122,000) |
| Health Stations | 30 (1:17,000) | 22 (1:17,000) | 33 (1:19,000) | 28 (1:17,500) | 22 (1:16,000) | 10 (1:24,000) |
| **Primary Education** | | | | | | |
| Gross Enrolment | | | | | | |
| Total | 31,322 | 30,596 | 83,289 | 75,403 | 15,910 | 5,205 |
| Female | 13,061 | 13,109 | 36,150 | 38,176 | 5,499 | 2,259 |
| Male | 18,261 | 17,487 | 47,139 | 37,227 | 10,411 | 2,946 |

EDHS = Eritrea Demographic and Health Survey, 1995.

* Please note that these figures are unadjusted and cover a ten year period whereas the IMR and U5MR figures quoted at the beginning of the text in "Eritrea At a Glance" refer to adjusted figures for the five year period preceding the EDHS; unfortunately, comparable figures for the regions are not available at present.

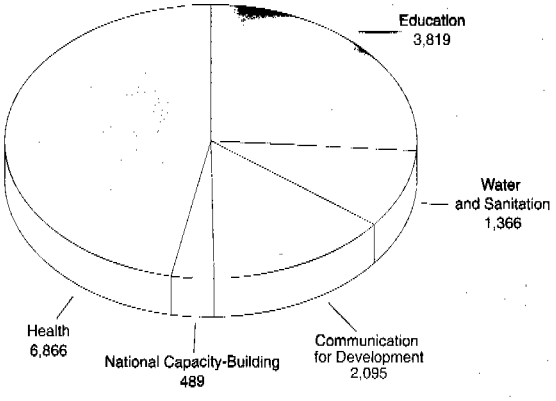
Figures in parentheses ( ) are based on 25-49 children

*Sources: EDHS, 1995; MOE, 1996; MOLG, 1996.*

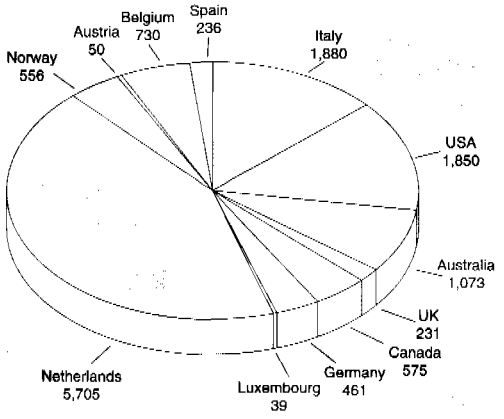
# UNICEF in Eritrea

UNICEF came to Eritrea in 1992. Since then it has cooperated with national and international partners in primary health care, basic education, water supply and sanitation and protection of children in especially difficult circumstances (CEDC). In primary health care, UNICEF has helped to train workers, rebuild facilities, expand child immunization and improve micronutrient nutrition (especially by iodating salt to prevent IDD). In basic education, UNICEF has worked to build or rehabilitate schools, train teachers, provide essential supplies and develop a new curriculum. In water supply and sanitation, it has helped to bring water to Keren and equip boreholes in rural areas. UNICEF has also worked to reunite war orphans with their families and secure the ratification of the Convention on the Rights of the Child. The Country Office's planned expenditure for 1996 amounted to US$ 14.6 million (see chart below). UNICEF enjoys strong donor support in executing its assisted activities; the three leading sources are the Netherlands, United States of America and Italy (see chart below).

**UNICEF's Planned Expenditure by Sector, 1996 (US$ '000)**




**Donor Funding for UNICEF's Planned Expenditure by Source, 1996 (US$ '000)**




Many opportunities are open to Africa's newest nation. The end of the war of independence allows Eritreans to focus exclusively on a "second liberation" from poverty and underdevelopment. After years of tension, regional cooperation in the Horn of Africa is growing, especially between Eritrea and Ethiopia (which share a currency). Eritrea has only a very low amount of outstanding debt. Donor interest is high. Eritrea's development starts from a "clean slate". It can learn from the successes and failures of other countries at a similar level of development. Starting from a low base, Eritrea also has the potential to achieve rapid improvements in human development.

## Goals and Strategies

On 30 September 1993, President Issaias Afwerki signed the Declaration and Plan of Action of the World Summit for Children. On 4 August 1994, the Government of Eritrea ratified the Convention on the Rights of the Child – widely considered to be the most detailed and progressive statement of human rights ever adopted by the United Nations.

In a major re-affirmation of these steps, Eritrea also committed itself in 1994 to the pursuit of the Mid-Decade Goals – mid-way on the road to the year 2000 goals set at the World Summit for Children – despite its achievement of formal independence only about 2 years before the targeted date for goal attainment. Subsequent discussions between the Government, especially the Ministry of Health, and UNICEF led to the development of goals more suited to the specific circumstances of Eritrea. These were as follows:

- raise the national vaccination coverage for children to at least 65 percent by December, 1995, reaching at least 80 percent coverage in each of the highland provinces and at least 50 percent in each of the lowland provinces;
- reduce the incidence of neonatal tetanus (and aim to eliminate this illness by the year 2000);
- reduce measles mortality (deaths) by 70 percent and morbidity (complications) by 60 percent;
- reduce the incidence of paralytic polio to less than 200/year by December, 1995, and aim to eradicate this illness by the year 2000;
- iodate all salt for human and animal consumption;
- virtually eliminate Vitamin A deficiency;

- achieve and maintain a status of baby- and mother-friendliness in all hospitals in the country;
- raise the oral rehydration therapy utilisation rate to 80 percent;
- ratify the Convention on the Rights of the Child; and
- reduce the number and alleviate the suffering of children in especially difficult circumstances.

Despite a late start, and the considerable handicap posed by the devastation of war and natural disasters, Eritrea has been able to make important progress towards some of the key Mid-Decade Goals as shown in the panel on below.

### Eritrea Reaches Key Mid-Decade Goals (MDGs)

- An increase in immunisation coverage from 14 percent in 1993 to 41 percent in 1995 (and probably 60 percent by the end of 1997; the two national immunisation days in October and November 1996 reached 64 percent and 74 percent, respectively, of the target group of under-fives).
- Almost universal salt iodation to combat iodine deficiency disorders in both Eritrea and Ethiopia.
- Certification of baby-and mother-friendly status for almost all (96 percent) of maternity facilities in the country, one of the highest rates in Sub-Saharan Africa.
- An increase in the gross enrolment ratio in primary schools from 36 percent in 1991/92 to 52 percent in 1995/96.
- Ratification of the Convention on the Rights of the Child (CRC) on 4 August, 1994.
- Accession to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in August, 1995.
- A diminution of the number of children in especially difficult circumstances (registered orphans) from 89,527 in 1990 to 79,527 in 1995 through the process of family reunification.

The Declaration and Plan of Action of the World Summit for Children and the Convention on the Rights of the Child provide the essential framework for UNICEF's cooperation with the Government of Eritrea. The fundamental goals of this assistance will be to meet the basic needs of children and women and guarantee their rights. This will involve working together to achieve specific targets for key indicators of human development, such as access to services and mortality rates. These targets will be established within the framework of a National Programme of Action (NPA) for Children, which will be developed to honour the Government's commitment to the Declaration and Plan of Action of the World Summit for Children. The formulation of the NPA is currently awaiting a decision by Government.

UNICEF and the Government aim to develop programmes which achieve maximum impact, are sensitive to equity considerations as well as sustainable over the long-term. To this end, they are promoting, among other approaches, decentralized management and community responsibility. Guided by these principles, the two partners have jointly prepared a Programme of Cooperation for 1996-2000 which is expected to expand basic services – such as primary health care and basic education – to address the immediate causes of ill health and malnutrition and raise the quality of life of many children and women in a relatively short period of time. The Programme will attempt to build the capacity of governmental bodies and other development partners so as to sustain implementation over the medium- to long-term. It will also aim to empower children and women by helping them to recognize and overcome obstacles to their own development. In an attempt to maximise impact and promote learning-by-doing, Government and UNICEF have, in addition, agreed to pay particular attention to three focus regions - Gash-Barka, Southern and Central.

# Notes