Eritrea

Demographic and Health Survey 1995

National Statistics Office
Department of Macro Policy
and International Economic Cooperation
Office of the President

Demographic and Health Surveys
Macro International Inc.

World Summit for Children Indicators: Eritrea 1995

		Value
	BASIC INDICATORS	
Childhood mortality	Infant mortality rate (adjusted rate)	72 per 1,000
	Under-five mortality rate	136 per 1,000
Maternal mortality	Maternal mortality ratio	985 per 100,000
Childhood undernutrition	Percent stunted	38.4
	Percent wasted	16.4
	Percent underweight	43.7
Clean water supply	Percent of households within 15 minutes of a safe water supply[1]	16.4
Sanitary excreta disposal	Percent of households with flush toilets or VIP latrines	12.8
Basic education	Percent of women 15-49 with completed primary education	18.5
	Percent of men 15-49 with completed primary education	30.7
	Percent of girls 6-12 attending school	40.4
	Percent of boys 6-12 attending school	45.1
	Percent of women 15-49 who are literate	34.8
Children in especially difficult situations	Percent of children who are orphans (both parents dead)	0.7
	Percent of children who do not live with their natural mother	10.0
	Percent of children who live in single adult households	11.2
	SUPPORTING INDICATORS	
Women's Health		
Birth spacing	Percent of births within 24 months of a previous birth	25.6
Safe motherhood	Percent of births with medical prenatal care	48.9
	Percent of births with prenatal care in first trimester	12.0
	Percent of births with medical assistance at delivery	20.6
	Percent of births in a medical facility	17.3
	Percent of births at high risk	64.6
Family planning	Contraceptive prevalence rate (any method, currently married women)	8.0
	Percent of currently married women with an unmet demand for family planning	27.5
	Percent of currently married women with an unmet need for family planning to avoid a high-risk birth	21.8
Nutrition		
Maternal nutrition	Percent of mothers with low BMI	40.6
Low birth weight	Percent of births at low birth weight (of those reporting numeric weight)	20.7
Breastfeeding	Percent of children under 4 months who are exclusively breastfed	63.5
Iodine	Percent of households with iodized salt	0.2
Child Health		
Vaccinations	Percent of children whose mothers received tetanus toxoid vaccination during pregnancy	33.3
	Percent of children 12-23 months with measles vaccination	51.0
	Percent of children 12-23 months fully vaccinated	41.4
Diarrhea control	Percent of children with diarrhea in preceding 2 weeks who received oral rehydration therapy (sugar-salt-water solution)	37.6
Acute respiratory infection	Percent of children with acute respiratory infection in preceding 2 weeks who were seen by medical personnel	37.1

[1] Piped, well, and bottled water

Eritrea Demographic and Health Survey 1995

National Statistics Office
Department of Macro Policy and
International Economic Cooperation
Office of the President
Asmara, Eritrea

Macro International Inc.
Calverton, Maryland USA

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This report summarizes the findings of the 1995 Eritrea Demographic and Health Survey (EDHS) conducted by the National Statistics Office in the Department of Macro Policy and International Economic Cooperation, Office of the President. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development.

The EDHS is part of the worldwide Demographic and Health Surveys (DHS) program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information about the Eritrea survey may be obtained from the National Statistics Office, P.O. Box 5838, Asmara, Eritrea (Telephone: 291-1-128034; Fax: 291-1-128034). Additional information about the DHS program may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (Telephone 301-572-0200; Fax: 301-572-0999).

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PREFACE

The National Statistics Office (NSO) conducted the first Demographic and Health Survey (EDHS) between September and December 1995. The EDHS is the first comprehensive survey carried out by the NSO since its formation in late 1992. A preliminary report of the EDHS was distributed in April 1996. This report presents the major findings of the 1995 EDHS in greater detail.

Eritrea as a newly independent country did not inherit a functional National Statistical System and as such the country lacks most of the crucial information that is vital to the enhancement of its development programmes. Attempts are underway to fill the information gap in earnest. The EDHS is one of those attempts and will no doubt benefit broad users.

The main objective of the EDHS is to provide policymakers and programme formulators in population and health with adequate and reliable information. The EDHS collected information on demographic characteristics, fertility, infant and child mortality, maternal mortality, nuptiality, fertility preferences, family planning and health-related matters such as breastfeeding practices, antenatal care, children's immunization, childhood disease, nutritional status of mothers and young children and awareness and behaviour regarding sexually transmitted diseases including AIDS.

The NSO extends its acknowledgment and gratitude to the various institutions and individuals in the government, cooperation partners and the public for their support in facilitating the successful implementation of the survey. However, special mention is due to the following:

- Department of Macro Policy and International Economic Co-operation for the follow-up of the programme.
- The Ministry of Local Government and the City Administrations for crucial assistance all the way down to the village/mimhidar level to enhance smooth field operations.
- The Ministry of Defence for facilitation of field operation in remote areas.
- The Ministry of Health for close cooperation in the whole operation, and for the significant technical and logistical inputs.
- United States Agency for International Development (USAID) for funding assistance.
- Macro International Inc. (Maryland USA) for technical assistance.
- The UNDP, UNFPA and UNICEF for logistics and financial support.
- All the EDHS field personnel for commitment to high-quality work in difficult working conditions.
- The EDHS respondents for patience and cooperation in supplying the necessary information and
- Last but not least the NSO staff, few as they are but who made the survey successful through commitment and a spirit of team work.

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SUMMARY OF FINDINGS

The Eritrea Demographic and Health Survey (EDHS) is a nationally-representative survey of 5,054 women age 15-49 and 1,114 men age 15-59. The EDHS was designed to provide information on levels and trends of fertility, family planning knowledge and use, infant and child mortality, maternal and child health, maternal mortality, and female circumcision. Fieldwork for the EDHS took place from mid-September 1995 to mid-January 1996.

FERTILITY

Fertility Levels. EDHS data indicate that fertility in Eritrea is high. The total fertility rate is 6.1 births per woman, the crude birth rate for the period 1992-94 was 37.5 live births per 1,000 population, and the general fertility rate for the three-year period was 198 births per 1,000 women.

Fertility Differentials. Fertility is substantially lower among women in Asmara, who have only 3.7 children per woman on average, and women in urban areas (4.2 children per woman on average) than among rural women (7.0 children). Moreover, women who have received some secondary education have the lowest level of fertility, with a total fertility rate of 3.0, compared with a rate of around 7 children per woman for those with no education, a difference of four children.

Age at First Birth. Compared with most countries in sub-Saharan Africa, childbearing begins late in Eritrea, with just under half of women becoming mothers by the time they reach age 21, This is true for both urban and rural areas.

Teenage childbearing is not common among women in Asmara and other towns but is fairly common among women in rural areas in Eritrea. Overall, less than one-quarter of teenage women (age 15-19) have begun childbearing, with 19 percent having had a child already and 4 percent carrying their first child. One-third of rural teenagers have either become mothers or are on their way to becoming mothers, compared with only 7 percent of urban teenagers. Teenage pregnancy is a challenge to policymakers since EDHS data show that children born to young mothers suffer higher rates of morbidity and mortality.

Birth Intervals. The majority of Eritrean children (74 percent) are born after a "safe" birth interval (24 or more months), with more than one-third born at least 36 months after a prior birth. Nevertheless, one in four non-first births occurs less than 24 months after the preceding birth, with 11 percent occurring less than 18 months since the previous birth. The overall median birth interval is 31 months. The median birth intervals in urban and rural areas are practically the same.

Fertility Preferences. Survey data indicate that Eritrean women and men desire large families. Among those with seven or more children, 29 percent of married women and 42 percent of married men want to have more children. Overall, women report a mean ideal number of children of 6.0, compared with 6.9 children for men; ideal family size is higher among currently married women and men (6.6 and 7.8, respectively). Only 4 percent of women regard a two-child family as ideal. Men are more pronatalist than women: 23 percent of men desire 10 or more children compared with 12 percent of women.

Unplanned Fertility. Despite the low level of contraceptive use, unplanned pregnancies are not common due to high ideal family size and moderate birth intervals. Overall, 18 percent of current pregnancies and births in the three years prior to the survey were reported to be unplanned; most were

mistimed (wanted later), although 5 percent were unwanted. If unwanted births could be eliminated altogether, the total fertility rate in Eritrea would be 5.7 births per woman instead of the actual level of 6.1.

FAMILY PLANNING

Knowledge of Contraceptive Methods. Only about two-thirds of women and four-fifths of men know of at least one modern method of family planning. Among both currently married women and men, the pill is the best known method, while injectables and condoms are also well known.

Use of Contraception. The contraceptive prevalence rate in Eritrea is only 8 percent. Three percent of currently married women reported using breastfeeding to prevent pregnancy, 2 percent use the pill, and less than 1 percent use any other method.

Differentials in Family Planning Use. Differentials in current use of family planning by residence are large. One-quarter of married women in Asmara are contraceptive users, compared with 11 percent of women in other towns and 5 percent in rural areas. Use of any method is highest in the Central Zone (21 percent) and lowest in the Anseba and Gash-Barka Zones. There are large differentials in current use by level of education. Four percent of currently married women with no formal education are currently using a method, compared with 40 percent of those with some secondary education.

Source of Contraception. Four in five current users of modern methods obtain their methods from public sector sources, while 17 percent use private sector medical sources and 5 percent use other private sources. The predominant source of contraceptives in the public sector is the Planned Parenthood Association of Eritrea, providing contraceptives to 40 percent of current users of modern methods.

Family Planning Messages. Almost 4 in 10 women and men interviewed reported that they had heard a family planning message on radio and/or television in the few months prior to the survey. Women and men in the Gash-Barka Zone were least exposed to family planning messages, with only 14 percent of women and 22 percent of men having heard a family planning message, compared with over two-thirds of women and men in the Central Zone.

Unmet Need for Family Planning. There is a considerable unmet need for family planning services in Eritrea. Overall, slightly more than 27 percent of currently married women are in need of services—21 percent for spacing their next birth and 6 percent for limiting births. If all currently married women who say they want to space or limit their children were to use methods, the contraceptive prevalence rate could be increased from 8 to 35 percent. Currently, 22 percent of the "total demand" for family planning is being met.

Availability of Family Planning Services. Family planning services are not widely available in Eritrea. Only one-third of married women live within 5 kilometers of a source of family planning, and only one-quarter of married women can reach the nearest facility providing family planning services within 30 minutes.

MATERNAL AND CHILD HEALTH

High Childhood Mortality. Childhood mortality in Eritrea is high, but there is evidence of a decline in recent years. Currently, the direct estimate of the infant mortality rate for 0-4 years before the survey is 72 deaths per 1,000 births (adjusted for age at death heaping); under-five mortality is 136 deaths per 1,000 births. This means that one in seven children born in Eritrea dies before reaching her/his fifth birthday.

Childhood Vaccination Coverage. The EDHS results show that 41 percent of children age 12-23 months are fully vaccinated and 38 percent have not received any vaccinations. The proportion of children age 12-23 months who were fully vaccinated before their first birthday is 30 percent. This is an improvement from 19 percent of children 24-35 months who were estimated to have been fully vaccinated during their first year of life. While four-fifths of children 12-23 months in urban areas are fully vaccinated, less than one-third of children 12-23 months in rural areas are fully vaccinated, and a large proportion have not received any vaccination.

Childhood Health. EDHS data point to relatively high levels of childhood illness. Approximately one in four children under age three had a respiratory illness during the two weeks before the survey. Of these, 37 percent were taken to a health facility or provider for treatment. More than four in ten children under age three were reported to have had a fever and one-fourth were reported to have had diarrhea in the two weeks preceding the survey. About two-thirds of the children with diarrhea received some sort of oral rehydration therapy (a solution prepared from packets of oral rehydration salts (ORS), a homemade sugar-salt-water solution, or increased fluids). Sixty-four percent of mothers know about the use of ORS packets, yet when asked about specific eating and drinking regimes for sick children, only half say that a child who is sick with diarrhea should be given more to drink than usual, and more than half say a child with diarrhea should be given less to eat than usual.

Breastfeeding Practices. Breastfeeding is almost universally practiced in Eritrea, with a median duration of 22 months. Since breastfeeding has beneficial effects for both the child and the mother, it is encouraging to note that complements to breast milk start relatively late in Eritrea. In the first two months, only 14 percent of children receive supplements other than water and breast milk. At age 4-5 months, 29 percent of children are given some form of food supplementation. Also encouraging is the fact that the use of infant formula and bottle feeding are not common. However, only three-fourths of children who are breastfed receive complementary foods or drinks at the recommended age of 7-9 months.

Childhood Nutritional Status. Overall, 38 percent of Eritrean children under age three are classified as stunted (low height-for-age) including 18 percent who are severely stunted. About 15 percent of children under three in Eritrea are wasted (low weight-for-height); 3 percent are severely wasted. Rural children are more likely to be malnourished than urban children.

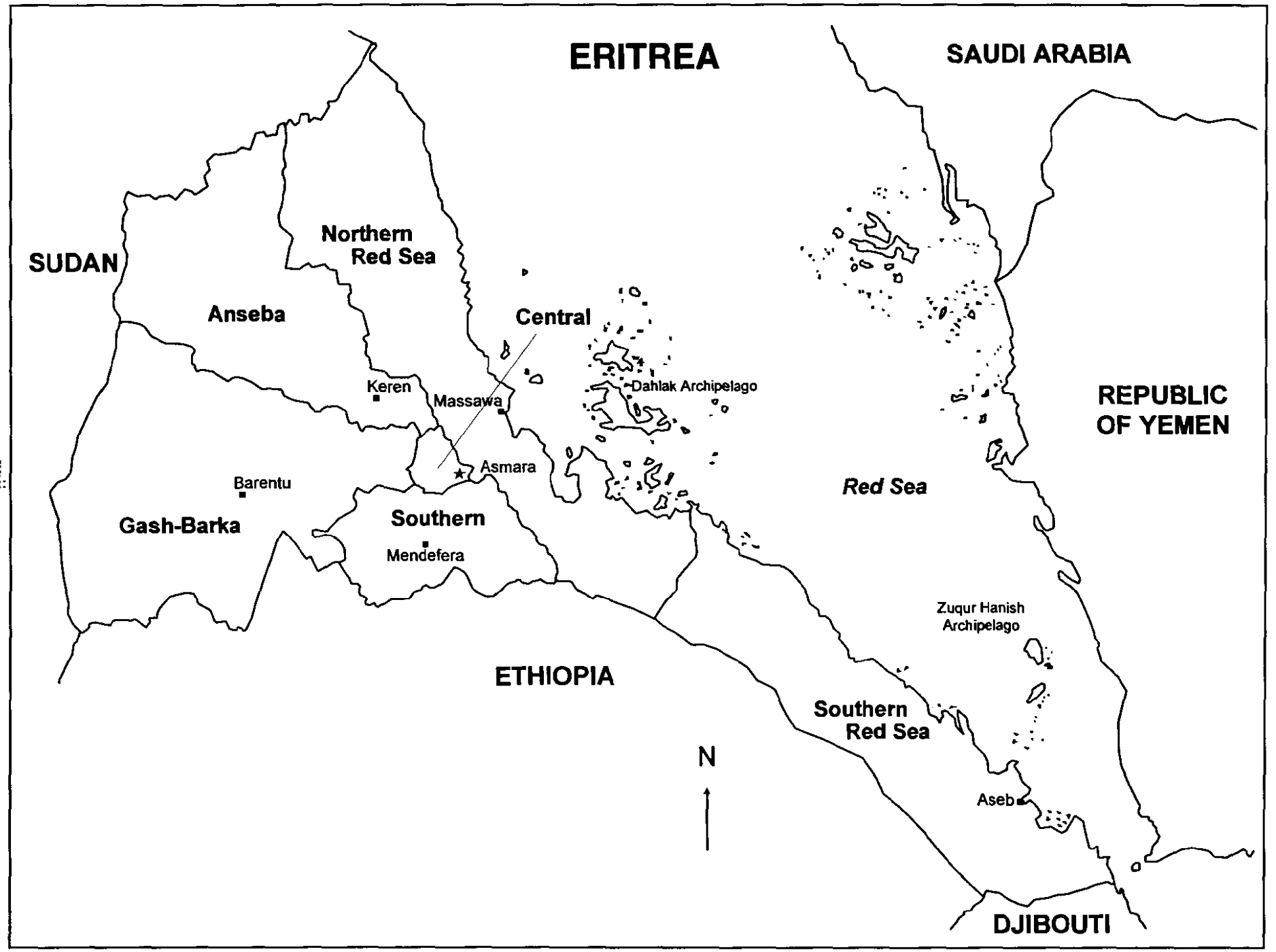
Maternal Health Care. EDHS data point to several areas of maternal and child health care in which improvements could be made. For births in the three years before the survey just half of Eritrean mothers received antenatal care. Of these, half received care from a doctor and half from a nurse or trained midwife. For 30 percent of births mothers received iron tablets and for 33 percent they received multivitamin tablets. Tetanus toxoid coverage is not high in Eritrea; mothers received two or more tetanus toxoid injections during pregnancy for less than one-fourth of births in the three years before the survey. Only 17 percent of births are delivered in a health facility while 21 percent of births are assisted by trained medical personnel. Maternal health care in rural areas is much poorer than in urban areas. Proper medical attention during pregnancy and hygienic conditions during delivery can reduce the risk of complications and infections that can cause death or serious illness for the mother or the newborn.

Female Circumcision. Female circumcision is almost universal in Eritrea, with 95 percent of women having been circumcised. Younger women (age 15-19) and women living in the Southern and Central Zones are slightly less likely to be circumcised than other women. Of circumcised women, 6 in 10 had clitoridectomy, one in three received infibulation, and 4 percent had excision. One in five circumcised women had a problem during sexual relations or during delivery; 9 percent had both types of problems. The majority of women (three-fourths) with these problems did not seek any outside treatment. Fifty-seven percent of women and 46 percent of men interviewed support continuation of the

practice, whereas 38 percent of women and 42 percent of men think that the practice of female circumcision should be discontinued.

AIDS. Seventy-two percent of women and 89 percent of men know about AIDS. Radio and friends and relatives are the main sources for knowledge of AIDS among both women and men. Forty-seven percent of women and 41 percent of men say that limiting the number of sexual partners or having only one partner can prevent the spread of the disease. About 35 percent of men and women say that using condoms is a way to avoid AIDS. However, knowledge of ways to avoid AIDS is related to respondents' education. Safe patterns of sexual behavior are less commonly reported by respondents who have little or no education than those with more education. Overall, 93 percent of women and 99 percent of men believe that they have little or no chance of being infected with AIDS.

Availability of Health Services. Roughly half of women in Eritrea live within 5 km of a facility providing antenatal care and delivery care, and 40 percent of children under three live within 5 km of a facility providing immunization services. However, children whose mothers received both antenatal and delivery care are more likely to live within 5 km of a facility providing maternal and child health (MCH) services (60 percent) than those whose mothers received neither antenatal nor delivery care (20 percent).


ERITREA
SAUDI ARABIA
SUDAN
Northern
Red Sea
Anseba
Central
Keren
Massawa
Dahlak Archipelago
REPUBLIC
OF YEMEN
Asmara
Barentu
Red Sea
Gash-Barka
Southern
Mendefera
Zuqur Hanish
Archipelago
ETHIOPIA
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Aseb
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CHAPTER 1

INTRODUCTION

1.1 Geography, History and Economy

Geography

Eritrea, shaped like a hatchet, lies north of the equator and just north of the Horn of Africa. It is bounded in the northwest by the Sudan, in the south by Ethiopia, and in the southeast by Djibouti. Its longest border, the "handle" of the hatchet, is in the east on the Red Sea.

The country has a coastline of more than 1,000 kilometers (625 miles) and its territory includes more than 350 islands. Eritrea's proximity to the Red Sea together with its physical features account for its varied climate and rainfall. The highlands have a cool temperate climate while the lowlands are characterized by a hot and humid climate, especially along the coast. Eritrea is in the Saharan rainfall zone and receives its heaviest rains from the southwest monsoons. In normal years, rainfall varies from an annual average of 400 mm to 650 mm in the highlands and from 200 mm to 300 mm in the lowlands.

History

On 1 January 1890, Italy set the boundaries of Eritrea and ruled it as a colony until 1941 when the British defeated the Italians in the African theater and took over the administration of Eritrea. During World War II, the British made Eritrea into an important center for British and American operations in the region.

With Italy's defeat in the Second World War, the question of the disposal of its colonies was raised in the United Nations (UN). The UN sent several multinational investigative teams to Eritrea to conduct local surveys on the wishes of the people. Different teams came up with different solutions, including dividing Eritrea into various portions and awarding them to Britain, France and Ethiopia; maintaining the protectorate for 10 years and then conducting a referendum; and granting full independence. After some years of deliberation, the UN adopted a resolution federating Eritrea with Ethiopia, but guaranteeing Eritreans some democratic rights and autonomy.

However, during the federation with Ethiopia, Emperor Haile Selassie's government systematically violated the rights granted by the UN. In 1961, an armed struggle for independence began after years of peaceful protest against Ethiopian infringements on Eritrean democratic rights and autonomy produced no improvement in a deteriorating situation. The Emperor's transgressions culminated in the unilateral dissolution of the Eritrean parliament and annexation of Eritrea as Ethiopia's fourteenth province in 1962.

In May 1991, 30 years after the struggle for independence began, the Eritrean People's Liberation Front (EPLF) liberated the entire country and established the Provisional Government of Eritrea (PGE). At the same time, the Ethiopian People's Revolutionary Democratic Front overthrew the Dergue, the Ethiopian Military junta, and instituted a Transitional Government in Ethiopia (TGE). In July 1991, at a national conference in Addis Ababa held to deliberate on the future of the country, the TGE endorsed the EPLF's decision to settle the Eritrean question in a referendum to be held two years hence, in which only Eritreans would participate.

In April 1993, the PGE conducted an internationally supervised referendum in which 98.5 percent of the population participated; 99.8 percent voted for independence. The head of the UN observer mission said the referendum was "free and fair at every stage." Other observer groups confirmed this.

After Eritreans celebrated their official independence on 24 May 1993, the Government was enlarged and reorganized, and a timetable of four years was set to accomplish the drafting of a constitution, development of political pluralism, and the establishment of an elected government (Ministry of Foreign Affairs, 1995).

Economy

Economically, the thirty-year war of liberation caused decades of lost development as well as the destruction of economic and social infrastructures. In 1995, Eritrea was a low-income developing country with a per capita income of less than US $200 per year.

Over 70 percent of Eritrea's people depend for their livelihood on traditional subsistence agriculture including crop farming, livestock raising and fishing, although commercial agriculture and fishing have recently been revived. Eritrea's industrial base is extremely backward and narrow as it is made up of small- and medium-scale consumer-goods producing industries (food, beverages, leather goods, textiles, etc.) whose technology is largely out of date as a result of neglect of investment during the long war.

Eritrea has, however, ample natural resources including over 2 million hectares of potentially arable land and the vast Red Sea continental shelf. The Red Sea fishing grounds are estimated to be capable of sustaining a production level of around 70,000 tons of fish per annum, while the current production level is less than 5,000 tons per year. As far as mineral resources are concerned, studies indicate the existence of base metals (gold, copper, zinc, lead, silver etc.) in several parts of the country but the commercial viability of the deposits has yet to be established. In fact, several companies have recently applied and received licenses to undertake exploration and prospecting work for base metals in the promising areas of the country. The potential for extracting petroleum from the Red Sea is also considered to be good and one company has already been granted an exploration license. Govemment development efforts since independence have concentrated on rehabilitating and rebuilding the war-damaged and destroyed economic and social infrastructures, creating and strengthening the institutions of a new state, and laying down the policy and legislative groundwork for development. In November 1994, the government issued a Macro-Policy statement which spells out the broad goals and strategies of development for the next twenty years. According to the Macro-Policy, "The creation of a modern technologically advanced and internationally competitive economy within the next two decades is an overriding national development objective." The key strategies envisaged in realizing this objective are "... human capital formation with education and health as key inputs, export oriented development both in industry and agriculture, infrastructure development to remove critical bottlenecks, environmental restoration and protection, and the promotion of the private sector."

1.2 Population

Since there has not been any survey or census conducted in the country before or after independence, the population size is not known with any degree of precision. Some rough professional estimates put the country's population in the range of 2.5 to 3.5 million. Estimates of the number of Eritreans living abroad range between 700,000 and 1,000,000. The population is culturally and linguistically diverse, consisting of nine ethnic groups, namely: Tigre, Tigrigna, Saho, Hedarib, Bilen, Kunama, Nara, Afar and Rashaida.

1.3 Historical Health Settings and Problems

At the end of the 19th century the Italians introduced a medical service into Eritrea, initially designed purely to protect the settlers from the tropical diseases they encountered. They established a hospital at Asmara, and set up clinics in the areas of Italian settlement. Later, the post-war Labor government during the British occupation opened a network of dispensaries, and although some facilities, such as the hospital

at Zula, were dismantled when the British left, Eritrea had a relatively advanced health service by the beginning of the federal period. This health system initially prospered under the Eritrean Administration. Mother and Child Health clinics were established and hospitals renovated (Firebrace and Holland, 1987). But since colonization, little had been done to teach the rural population about the causes and spread of disease. Sanitation and hygiene were rudimentary.

In the late 1950s Haile Selassie's regime began to cut Eritrea's health budget, which by 1965 had fallen to a third of its 1955 level (Firebrace and Holland, 1987). As the Eritrean liberation movement become more active, the Ethiopians began to close and destroy clinics. In the rural areas, where the limited health services provided by successive colonial authorities had minimal impact, traditional healers were still consulted and commanded respect.

The Eritrean Peoples Liberation Front (EPLF) set up clinics in the settled areas and served the nomadic zones and the contested areas with mobile teams. The EPLF health service started in 1970 with a single mobile clinic only competent to treat malaria and give basic first aid. Training of the first group of 25 "barefoot doctors" began in 1972, but it was not until the period 1975-78 that the health service really became effective. During these years hundreds of skilled Eritreans, including doctors, nurses and paramedical staff, fled the towns and joined the EPLF. Health services were rendered to both combatants and civilians (Firebrace and Holland, 1987).

The major health problems in Eritrea are communicable and nutritional deficiency diseases. Among the communicable diseases are diarrhea, acute respiratory infections, tuberculosis, malaria, HIV/AIDS, and parasitic infections. Vaccine preventable diseases are still common among children.

1.4 Health Policy Goals, Priorities and Programs

The national health policy is based on the concept and principles of primary health care (PHC), and is designed and developed in such a way that it serves the interest of the majority of the population (Ministry of Health, 1993). The key element of the concept is to promote a holistic approach to health with the active participation of the community. It is also to move away from the medical model of health delivery to a much broader notion of well-being, made possible through more accessible health services provided by the community-based health services system. The main components of PHC include maternal and child health (MCH) services, family planning, health and nutritional education, expanded program on immunization, control of communicable diseases, water and sanitation, provision of basic and essential preventive and curative care, and provision of essential drugs. All such programs and activities are integrated and are provided in almost all health facilities at different levels.

Since liberation in 1991, the Ministry of Health (MOH) has made significant progress in ensuring access to health care services through the restoration of health facilities which were damaged by war or were in a state of decay because of inadequate maintenance; the provision of an adequate supply of essential drugs, supplies and equipment for effective provision of health services; and the expansion of available health services to populations which lacked health care, through the construction of new facilities.

Currently, the MOH is operating 20 hospitals, 43 health centers and 136 health stations, most of which are government owned (Ministry of Health, 1995). Moreover, the last few years have seen an expansion of the water and sanitation program as a strategy to control diarrheal diseases; the expansion of the immunization program for children under five and expectant mothers aimed at improving the health status of mothers and children; the provision of health care service for nominal fees to the majority of the population; and the training of traditional birth attendants in order to improve the quality of care for mothers who do not deliver at health facilities. The supplementary feeding programs for children under five and

expectant mothers in drought-stricken areas has improved the health status of "at-risk groups."

One of the greatest achievements of the MOH is in the development of human resources. Training of human power needed to staff health institutions is being carried out at a reasonable pace. A large number of nurses, midwives and health assistants have been trained. Moreover, the skills of ex-fighters who have had basic training in various fields of health—nurses, X-ray technicians, laboratory technicians, pharmacy technicians, dental clinicians, ophthalmic officers, assistant physiotherapists, anesthetists etc.—have been upgraded. A few health workers are also being trained abroad. Additionally, refresher courses and modular training on different program activities and management have been conducted.

1.5 Family Planning Policies and Programs

Family planning (FP) services in Eritrea were started as a branch of the Family Guidance Association of Ethiopia (FGAE), which has been in place since 1972. The Association had limited activities, and these were confined to urban areas of the country during the war of liberation (IPPF Africa Region, 1996).

Soon after liberation in 1991, one of the areas of concern for the MOH was to identify health problems related to mothers and children. Although it was not a well-structured survey, the maternal mortality ratio in Eritrea was estimated to be at least 700 per 100,000 live births (Ministry of Health, 1995). The total fertility rate was estimated to be 5.8, and in 1992, the MOH estimated that 19 percent of pregnant women received antenatal care and that 6 percent of all deliveries were attended by trained health workers. Tetanus toxoid coverage was estimated from administrative reports to be 13 percent in 1995. The availability and quality of family planning services are poor in many regions of the country and the medical consequences of unsafe abortions are frequently seen. These data suggest that reproductive health is a major public health problem in Eritrea.

With these facts in mind, the MOH created a section of MCH/FP under the PHC division. Family planning services were provided in areas where MCH services were delivered. Additionally, the Planned Parenthood Association of Eritrea (PPAE) was established in 1992. Its main concern is to complement the government's efforts in the integration of family planning education and services into developing programs and to promote reproductive health rights and services among the marginalized rural population, youth, women and refugees (IPPF Africa Region, 1996).

In spite of these efforts, family planning services were not as they were expected to be, and the MOH is in the process of restructuring itself. Family planning services will be handled through the Sexual and Reproductive Health Program, which will:

- Cover all men and women of reproductive age as the primary target groups for family planning services;
- Improve the accessibility, acceptability and quality of family planning and health services through greater involvement of the community, increased use of the private sector, improved quality of provider-client transactions, and improved program management and evaluation;
- Offer consumers a range of appropriate, safe, and effective contraceptive methods combined with comprehensive information and counseling;
- Emphasize information and services for women whose health or whose children's health would suffer from pregnancy and childbirth. This means a national campaign to:

- Reduce pregnancies among younger and older/high parity women;
- Encourage spacing of children;
- Decrease unwanted pregnancy and unsafe abortion;

- Educate and inform policymakers, opinion leaders, communities, families and individuals' about the health benefits of family planning, utilizing a range of culturally appropriate communication measures;

- Improve provider competence through clinical training and careful attention to better communication skills, including greater sensitivity to clients' perceptions and beliefs;

- Improve client-provider relations through better selection, training and deployment of field workers and continuous supportive supervision;

- Develop mechanisms to ensure constant availability of services to encourage continued contraceptive use; and

- Create an appropriate constellation of services that are both acceptable and convenient to clients, and are linked to primary health care and reproductive health services.

1.6 Objectives and Organization of the Survey

The Eritrea Demographic and Health Survey (EDHS) is the first survey ever undertaken by the National Statistics Office (NSO) of the Department of Macro Policy and International Economic Cooperation, Office of the President. It was implemented through the worldwide Demographic and Health Surveys (DHS) program of Macro International Inc. The EDHS was funded by the U.S. Agency for International Development (USAID), and technical assistance was provided by Macro International Inc. of Calverton, Maryland, U.S.A. through its contract with USAID. The UNFPA and UNICEF also provided some financial assistance.

The objectives of the EDHS are to:

- Collect data at the national level which will allow the calculation of demographic rates, particularly fertility and childhood mortality rates;

- Analyze the direct and indirect factors which determine levels and trends of fertility;

- Measure the level of contraceptive knowledge and practice (women and men) by urban-rural residence;

- Collect reliable data on maternal and child health indicators: immunizations, prevalence and treatment of diarrhea and diseases among children under age three, antenatal care visits, assistance at delivery, and breastfeeding;

- Assess the nutritional status of children under age three, and their mothers, by means of anthropometric measurements (height and weight) and analysis of child feeding practices; and

- Assess the prevailing level of specific knowledge and attitudes regarding AIDS and to evaluate patterns of recent behavior regarding condom use, among women and men.

1.6.1 Sample Design and Implementation

The EDHS employed a nationally representative, multi-stage probability sample of women between the ages of 15 and 49. The five main reporting domains are: the country as a whole, all urban areas, the capital Asmara, other urban areas outside Asmara, and rural areas. Estimates of selected variables were also produced for each of the six administrative zones[1] in the country.

Since there has been no national census, the sampling frame used for the survey was constructed from a combination of data sources. In rural areas, the sampling frame consisted of a list of villages with population figures collected by the Ministry of Local Government and the sampling units were villages. In urban areas, data on *zobas* (administrative units) and *mimihidars* (smaller units within *zobas*) collected by the NSO between August 1994 and January 1995 were used in the selection of *mimihidars* as sampling units. In the capital, Asmara, the sampling units were also *mimihidars;* however, since reliable data on population size did not exist for these *mimihidars,* the measure of size used for sample selection was the number of registered voters. From this, the number of households and the population size were estimated. A mapping and household listing operation was implemented to update the population size of the sampling units prior to selecting the households for the survey.

The sample for the EDHS was selected in two stages. First, 108 villages and 100 *mimihidars* were selected with probability proportional to size. When villages and *mimihidars* were very large (in population size), they were segmented and only one segment was selected for the survey, so that each cluster (sample point) corresponded generally to a village, a *mimihidar,* or part of a village or *mimihidar.* A complete listing of the households residing in the selected clusters was carried out. The list of households obtained was used as the frame for second-stage sampling, the selection of households to be visited by the EDHS survey teams during the main fieldwork. Women in these households between the ages of 15 and 49 were identified and interviewed. In one-third of the households selected for the survey, men between the ages of 15 and 59 were also interviewed.

On average, 25 households were selected in each urban cluster and 35 in each rural cluster. It was expected that the sample would yield interviews with approximately 5,000 women age 15 to 49 and 1,400 men age 15 to 59. Because of the non-proportional distribution of the sample in the 10 *provinces* that existed at the time of the sample design, sampling weights were applied to the data in this report.

Details concerning the EDHS sample design are provided in Appendix A; estimations of sampling errors for selected variables are included in Appendix B.

1.6.2 Questionnaires

Four types of questionnaires were used in the Eritrea Demographic and Health Survey: the Household Questionnaire, the Women's Questionnaire, the Men's Questionnaire, and the Service Availability Questionnaire. The Service Availability Questionnaire was based on the model questionnaire used in many recent DHS surveys, while the other questionnaires were based on the DHS Model B Questionnaire for Low Contraceptive Prevalence Countries. After a meeting with potential data users all the questionnaires were modified slightly to adapt them to the situation in Eritrea. The **Household Questionnaire** was used to list the names and background characteristics of all usual members and visitors to a selected household. The **Women's Questionnaire** was used to collect information from women age 15-49. In addition, interviewing teams measured the height and weight of mothers and their children under age three. The EDHS survey also

[1] See Appendix A, section A.10.

included three modules in the women's and the men's questionnaire, namely, maternal mortality, awareness of AIDS, and female circumcision. Information from a sub-sample of men age 15-59 was collected using a **Men's Questionnaire.** The **Service Availability Questionnaire** was used to collect information on the health, family planning services and other social services in the sampled clusters. All the questionnaires were first translated from English into Tigrigna. In addition, the Women's and Men's Questionnaires were also translated into Tigre, Kunama, and Afar. Appendix E contains the English version of all questionnaires.

1.6.3 Training and Fieldwork

Pretest training and field testing took place in April 1995. For the first three weeks, 7 female and 2 male interviewers were trained to carry out the pretest. Following the training, the pretest fieldwork was conducted over a three-week period during which approximately 250 interviews were completed. Debriefing sessions were held with the pretest field staff and necessary modifications to questionnaires were made based on the experience of the pretest exercise.

Training of the field staff for the main survey was conducted during a one-month period in August, 1995. The training course consisted of instructions regarding interviewing techniques and field procedures, a detailed review of items on the questionnaire, instruction and practice in weighing and measuring children and women and mock interviews with men and women of eligible age in areas outside the EDHS sample points. Within the constraint of ensuring that there was an adequate number of interviewers for each of the four local languages, interviewers were selected on the basis of overall performance in class, scores on the tests given in class, and performance during field practice interviews. From among those selected, candidates suitable as field editors and supervisors were identified. The supervisors, field editors, and male interviewers/team leaders were given additional training in coordination of fieldwork, methods of field editing, and data quality control procedures.

The EDHS fieldwork was carried out by eight teams, each consisting of one male interviewer/team leader, one female supervisor, one female field editor, four female interviewers, and driver. Five field survey coordinators, three permanent professional staff from the National Statistics Office, and two persons selected from among the trainees were assigned to oversee the teams, facilitate fieldwork activities, and monitor data quality. Data collection took place over a four-month period from mid-September 1995 to mid-January 1996. However, most data collection was completed by end of 1995. The persons involved in the EDHS are listed in Appendix D.

1.6.4 Data Processing

All questionnaires for the EDHS were returned to the NSO for data processing, which consisted of office editing, coding of open-ended questions, data entry, and secondary editing (editing computer identified errors). The data were processed by a team consisting of four entry clerks and a data entry supervisor. The head of the data processing unit at the NSO provided overall supervision. Data entry and editing were accomplished using the computer program ISSA (Integrated System for Survey Analysis). Data processing commenced on 11 September 1995 and was completed on 9 March 1996.

1.6.5 Response Rate

Table 1.1 shows response rates for the EDHS. A total of 6,258 households were selected in the sample, of which 5,642 were occupied at the time of the survey ("found"). The shortfall was largely because some households no longer existed in the sampled clusters at the time of interview. Of the 5,642 households that existed at the time of the survey, 5,469 were interviewed, yielding a household response rate of 97 percent.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews and response rates, Eritrea 1995

Sample/response rate	Residence				Total
	Urban	Asmara	Other town	Rural	
WOMEN					
Household interviews					
Households sampled	2,564	1,265	1,299	3,694	6,258
Households found	2,384	1,223	1,161	3,258	5,642
Households interviewed	2,350	1,208	1,142	3,119	5,469
Household response rate	98.6	98.8	98.4	95.7	96.9
Individual interviews					
Number of eligible women	2,600	1,509	1,091	2,650	5,250
Number of eligible women interviewed	2,520	1,446	1,074	2,534	5,054
Eligible woman response rate	96.9	95.8	98.4	95.6	96.3
MEN					
Household interviews					
Households sampled	853	419	434	1,212	2,065
Households found	798	405	393	1,069	1,867
Households interviewed	784	398	386	1,038	1,822
Household response rate	98.2	98.3	98.2	97.1	97.6
Individual interviews					
Number of eligible men	620	353	267	647	1,267
Number of eligible men interviewed	562	316	246	552	1,114
Eligible man response rate	90.6	89.5	92.1	85.3	87.9

In the interviewed households 5,250 eligible women were identified of whom 5,054 were interviewed, yielding a response rate of 96 percent. In one-third of the households 1,267 eligible men were identified of which 1,114 were successfully interviewed (88 percent response). The lower response rate for men was due to frequent and longer absences of men for seasonal work.

Urban response rates were higher than rural response rates, the difference being especially pronounced for the men's survey. In urban areas, 91 percent of eligible men were interviewed, compared with 85 percent of men in rural areas.

The sample implementation results are presented in Table A.6.1 for women and Table A.6.2. for men (in Appendix A) by urban-rural residence and zone.

CHAPTER 2

CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

This chapter presents information on selected socioeconomic characteristics of the household population and the individual survey respondents including age, sex, education, and place of residence. The chapter also considers the conditions surrounding the households in which the survey population live, including source of drinking water, availability of electricity, sanitation facilities, housing materials, and housing congestion. The conclusions drawn from the survey will be related to these socioeconomic characteristics and environmental conditions. The characteristics of individual survey respondents, that is, women age 15 to 49 and men age 15 to 59, are discussed in Section 2.3. This background information is useful for understanding the factors which affect reproductive and contraceptive use behavior.

2.1 Household Population

The EDHS Household Questionnaire was used to collect data on the demographic and social characteristics of all usual residents of the sampled household, and visitors who had spent the previous night in the household.[1]

2.1.1 Age-Sex Composition

The distribution of the EDHS household population is shown in Table 2.1, by five-year age groups, according to sex and residence. The EDHS households constitute a population of 23,327 persons and the sample is 27 percent urban. Fifty-three percent of the sample population are females and 47 percent are males. There are larger numbers of the population in the younger age groups than in the older age groups of each sex in both urban and rural areas.

The age-sex structure of the population is shown by use of a population pyramid in Figure 2.1. The pyramid is wide-based, a pattern that is typical of high-fertility populations. There is a dearth of men age 15-64 as can also be observed in the low sex ratios for age groups 15-19 to 55-59 (see last column of Table 2.1). The low sex ratios may be partly due to war casualties and partly due to migration. However, it appears that male interviewers, who were mainly responsible for completing the Household Questionnaire, also shifted some men age 15-19 to a lower age group or omitted listing eligible male respondents (see Table C.1 in Appendix C). The number of males under five is slightly more than the number age 5-9 years, whereas the number of females is almost the same. Overall, the number of children age 0-4 is greater than in age group 5-9, a finding that is consistent with almost no fertility decline (see Chapter 3).

Figure 2.2 shows the distribution of the male and female household population by single year of age (see also Appendix Table C.1). The data indicate there is a preference for reported ages that end in zero or, to a lesser extent, five (age "heaping" or digit preference). This pattern is commonly found in countries where individual age is not known well. Additionally, there is avoidance of digits that end in one or nine. There

[1] A *household* refers to a person or group of related and/or unrelated persons who live together in the same dwelling unit, who acknowledge one adult male or female as head of household, who share the same housekeeping (cooking) arrangements, and are considered as one unit. A member of the household is any person who usually lives in the household and a visitor is someone who is not a usual member of the household but had slept in the household the night before the interview date. The household population presented in this chapter includes, unless otherwise stated, all usual members of the household who slept in the household the night before the survey and visitors (de facto population).

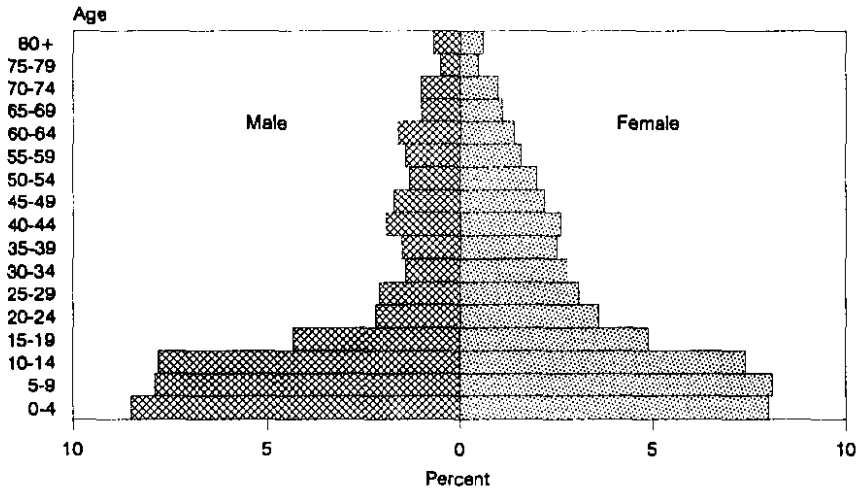
Table 2.1 Household population by age, sex and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and urban-rural residence, Eritrea 1995

Age group	Urban				Rural				Total			
	Male	Female	Total	Sex ratio[1]	Male	Female	Total	Sex ratio[1]	Male	Female	Total	Sex ratio[1]
0-4	15.0	10.3	12.5	120.2	19.4	16.8	18.1	103.8	18.2	15.0	16.5	107.0
5-9	15.0	12.5	13.6	98.7	17.5	16.4	16.9	96.5	16.9	15.3	16.0	97.0
10-14	17.0	14.5	15.6	96.6	16.6	13.7	15.1	108.8	16.7	13.9	15.2	105.2
15-19	12.3	12.8	12.6	79.4	8.1	7.8	7.9	93.9	9.2	9.2	9.2	88.2
20-24	6.6	8.1	7.4	67.6	4.1	6.2	5.2	59.6	4.8	6.7	5.8	62.3
25-29	5.5	6.3	5.9	72.6	4.2	5.7	5.0	66.4	4.5	5.9	5.2	68.2
30-34	3.4	5.0	4.3	56.7	2.9	5.3	4.1	49.3	3.0	5.2	4.2	51.3
35-39	2.8	5.6	4.3	41.2	3.2	4.3	3.8	67.3	3.1	4.7	3.9	58.5
40-44	4.0	5.0	4.6	66.5	4.0	4.7	4.4	75.5	4.0	4.8	4.4	72.9
45-49	3.9	4.2	4.1	78.3	3.5	4.0	3.8	79.3	3.6	4.1	3.9	79.0
50-54	3.2	3.8	3.5	68.9	2.6	3.7	3.2	65.0	2.8	3.7	3.3	66.1
55-59	2.6	3.2	2.9	66.7	3.0	2.9	3.0	95.6	2.9	2.9	2.9	86.8
60-64	2.6	2.7	2.7	79.4	3.6	2.6	3.1	123.6	3.4	2.7	3.0	110.8
65-69	2.4	2.2	2.3	90.0	2.2	2.1	2.1	93.7	2.2	2.1	2.2	92.6
70-74	1.7	1.7	1.7	87.3	2.2	1.9	2.0	106.9	2.1	1.8	2.0	101.9
75-79	0.9	1.0	0.9	77.9	1.2	0.8	1.0	128.9	1.1	0.9	1.0	113.1
80+	1.0	1.1	1.1	73.8	1.6	1.1	1.3	127.5	1.4	1.1	1.3	112.5
Total	100.0	100.0	100.0	83.0	100.0	100.0	100.0	90.0	100.0	100.0	100.0	88.0
Number	2,882	3,487	6,375	-	8,021	8,903	16,952	-	10,903	12,391	23,327	-

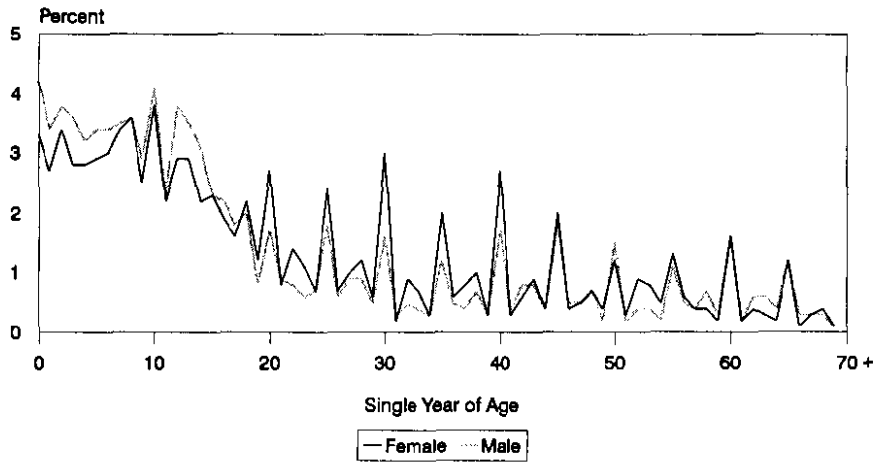
Note: Total includes a small number of people with age or sex not known.
[1] Sex ratio is the number of males per 100 females.

Figure 2.1
Distribution of the Household Population by Age



EDHS 1995

Figure 2.2
Distribution of the De Facto Household Population
by Single Year of Age and Sex



EDHS 1995

is a relative dearth of men age 20, 22, and 23 and an excess of men age 13 and 14, relative to women. This pattern is almost certainly due to male interviewers intentionally omitting or pushing men outside the eligible age range established for the survey.

The distribution of the de jure population[2] by broad age groups in Table 2.2 shows that children under 15 years of age and the population in age group 15-64 each account for 47 percent of the population, with the remaining population over 65 years of age. The population has a low median age of 16.5 years. The dependency ratio[3] is 114 which means that there are 114 persons under 15 years or over 64 years in Eritrea for every 100 persons age 15-64 years. In the de facto population, the distribution of population is similar.

Table 2.2 Population by age

Percent distribution of the de jure and de facto population by age group, Eritrea 1995

Age group	De jure population	De facto population
<15	46.8	47.8
15-64	46.7	45.8
65+	6.6	6.4
Total	100.0	100.0
Median age	16.5	15.9
Dependency ratio	114	118

[2] Seven percent of the usual residents were temporarily absent, while there were only 2 percent visitors (same proportion in male and female populations) in the de facto population. A slightly higher percentage of females were temporarily absent than the proportion of visitors, but 12 percent of males were temporarily absent from their household. Some of this difference is due to men working away from home in harvesting or in other jobs at the time the survey was conducted (data not shown).

[3] The *dependency ratio* is defined as the sum of all persons under 15 years or over 64 years divided by the number of persons age 15-64, multiplied by 100.

2.1.2 Household Composition

Table 2.3 shows that about one in three Eritrean households is headed by a woman. There is a larger proportion of female-headed households in urban areas (44 percent) than in rural areas (26 percent). Ten percent of households consist of only one person; single member households are more common in other towns (urban areas other than Asmara) than in Asmara or rural areas. The households with two to five members constitute 60 percent of households. One in 9 households has at least eight members and large households are more common in Asmara (1 in 7) than in rural areas (1 in 10). The average household size is 4.4 persons in the country as whole, as well as in rural and urban areas, however, the households in Asmara are slightly larger (4.6 persons) than those in other towns (4.2 persons).

Foster children are those persons under 15 years of age who are not living with either of their biological parents. One in 10 households has foster children; urban households are slightly more likely to have foster children.

Table 2.3 Household composition

Percent distribution of households by sex of head of household, household size, and percentage of households with foster children, according to residence, Eritrea 1995

	Residence				
Characteristic	Urban	Asmara	Other towns	Rural	Total
Household headship					
Male	55.8	55.4	56.4	74.1	69.2
Female	44.2	44.6	43.6	25.9	30.8
Number of usual members					
1	12.1	10.4	14.4	9.6	10.2
2	14.3	13.4	15.5	13.7	13.8
3	15.3	15.1	15.6	16.2	16.0
4	14.1	14.2	14.1	15.8	15.4
5	13.4	14.6	11.8	13.8	13.7
6	8.7	8.4	9.3	11.8	11.0
7	8.3	8.7	7.9	8.9	8.8
8	5.9	6.5	5.0	5.6	5.7
9+	7.6	8.6	6.1	4.6	5.4
Total	100.0	100.0	100.0	100.0	100.0
Mean size	4.4	4.6	4.2	4.4	4.4
Percentage of households with foster children	10.9	11.0	10.7	9.5	9.8

Note: Table is based on de jure members, i.e., usual residents of household.

Information regarding foster children and orphans under 15 years of age is presented in Table 2.4. More than 7 in 10 children under 15 years of age live with both parents, 12 percent live with their mothers (but not their living fathers), 1 percent live with their fathers (but not their living mothers), and 3 percent live with neither parent although both are alive. Nine percent of children live with only one parent because the other parent is dead. The percentage of children not living with both parents increases with increasing age of the child. Children are more likely to live with both parents in rural than in urban areas. The proportion living with both parents varies little by sex or by zone except in the Anseba Zone where children are more likely to live with their parents.

Table 2.4 Foster children and orphans

Percent distribution of de jure children under age 15 by survival status of parents and child's living arrangements, according to child's age, sex, residence, and zone, Eritrea 1995

Characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing info. on father/ mother	Total	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Father only alive	Mother only alive	Both dead			
Age												
<2	78.8	17.8	0.9	0.3	0.5	0.9	0.5	0.0	--	0.3	100.0	2,422
3-5	76.4	12.7	3.9	1.3	2.0	1.7	0.7	0.5	0.3	0.4	100.0	2,182
6-8	72.4	10.0	6.6	1.1	3.2	2.9	0.9	1.1	0.8	1.0	100.0	2,425
9-11	66.6	9.1	10.3	1.5	3.9	3.5	2.2	1.0	1.1	0.8	100.0	2,076
12+	63.6	8.5	11.1	0.9	4.1	5.1	1.4	1.4	1.5	2.4	100.0	2,164
Sex												
Male	71.8	11.4	6.3	1.3	2.6	3.0	0.9	0.7	0.9	1.0	100.0	5,731
Female	71.7	12.1	6.5	0.7	2.8	2.5	1.3	0.9	0.5	0.9	100.0	5,509
Residence												
Urban	65.0	17.1	6.9	1.3	1.4	4.3	0.9	0.9	0.5	1.7	100.0	2,659
Asmara	66.0	16.8	5.5	1.4	1.4	4.5	0.7	1.0	0.5	2.2	100.0	1,487
Other towns	63.6	17.6	8.7	1.1	1.4	4.1	1.1	0.8	0.4	1.1	100.0	1,171
Rural	73.9	10.1	6.2	0.9	3.1	2.3	1.2	0.7	0.8	0.7	100.0	8,610
Zone												
Southern Red Sea	71.2	9.7	5.8	1.3	2.2	5.8	1.3	0.4	0.8	1.7	100.0	253
Northern Red Sea	73.4	12.9	5.7	1.7	2.2	1.8	0.6	0.7	0.6	0.4	100.0	1,328
Anseba	76.3	9.1	6.8	0.8	3.0	1.4	0.8	1.2	0.6	0.2	100.0	1,511
Gash-Barka	70.5	8.5	6.5	0.8	6.0	1.6	2.5	0.7	1.3	1.5	100.0	2,173
Southern	71.8	12.3	7.4	0.9	1.7	3.1	0.9	0.7	0.6	0.7	100.0	3,720
Central	69.2	15.4	4.8	1.1	1.2	4.5	0.7	0.9	0.6	1.6	100.0	2,282
Total	71.8	11.8	6.4	1.0	2.7	2.8	1.1	0.8	0.7	0.9	100.0	11,269

Note: By convention, *foster children* are those who are not living with either of their biological parents. This includes *orphans*, i.e., children with both parents dead.
-- Less than 0.05 percent

Less than 1 percent of children under 15 have lost both parents. Eleven percent have only one parent alive: 7 percent have lost their fathers and 4 percent have lost their mothers. The loss of one or both parents varies little by sex of the child or residence. However, the proportion of children whose mother is not alive or whose parents are both dead is highest in the Gash-Barka Zone. In that zone, 17 percent, or 1 in 6 children under 15 has lost one or both parents.

2.1.3 Educational Level of Household Members

The educational level of household members is an important characteristic because educational attainment affects many areas including reproductive behavior, proper hygienic practices, health of children and the status of women.

Eritrea's current formal education is based on a four-tier system, known as the 5-2-4-4 system. In this system primary education consists of five years of schooling, two years of junior secondary education, four years of secondary education, and four years of higher/university education. The current system was adopted after de facto independence in 1991, replacing the four-tier system (6-2-4-4) of Ethiopia in which primary schooling was one year longer than in the current system. Informal education is also provided in Eritrea, e.g., Koranic and church education. Moreover, the Women's Association gives some adult education to its members. The informal education activities promote literacy in certain sectors of the population.

Tables 2.5.1 and 2.5.2 show the distribution of female and male household members age six and above by the highest level *attended* in school and the median number of years of education *completed*, according to age, residence, and zone.

Two-thirds (67 percent) of women have no education, 23 percent have attended primary school, 9 percent secondary school, and less than one-half of one percent have higher education. The proportion of women who have attended school and also the level of education are inversely related to age in the population age 10 and over. The reason a majority (67 percent) of girls in the 6-9 age group have no education is that some girls will start attending school at age 7 or even later.[4]

That educational opportunities are concentrated mainly in urban areas is confirmed by the survey results. The majority of women in urban areas have some education, two-thirds of women in Asmara and over one-half of women in other towns, compared with only one-fifth of women in rural areas. The disparity by residence is not confined only to attending school but also to the level of education attained. Among those who have been to school, a higher proportion have attended secondary or higher level of school in urban than

Table 2.5.1 Educational level of the female household population

Percent distribution of the de facto female household population age six and over by highest level of education attended, and median number of years of schooling, according to selected background characteristics, Eritrea 1995

Background characteristic	No education	Primary	Secondary	Higher	Don't know/ missing	Total	Number of women	Median years of schooling
Age								
6-9	66.6	32.4	0.0	0.0	1.0	100.0	1,539	0.0
10-14	40.3	51.9	7.8	0.0	0.1	100.0	1,728	1.3
15-19	39.0	29.5	31.0	0.2	0.3	100.0	1,137	2.9
20-24	54.6	18.8	25.3	0.9	0.4	100.0	834	0.0
25-29	71.4	14.2	13.7	0.6	0.1	100.0	726	0.0
30-34	79.0	11.9	7.7	1.2	0.3	100.0	644	0.0
35-39	77.3	14.8	6.4	1.1	0.4	100.0	579	0.0
40-44	84.7	10.5	3.7	0.7	0.4	100.0	598	0.0
45-49	90.0	7.6	1.6	0.4	0.3	100.0	502	0.0
50-54	93.3	4.6	1.1	0.2	0.8	100.0	459	0.0
55-59	94.0	2.7	0.7	0.2	2.4	100.0	365	0.0
60-64	97.3	1.6	0.0	0.0	1.1	100.0	330	0.0
65+	96.2	1.0	0.1	0.0	2.7	100.0	736	0.0
Residence								
Urban	36.6	35.7	26.0	1.2	0.5	100.0	3,055	2.7
Asmara	32.0	34.2	31.8	1.6	0.4	100.0	1,960	3.6
Other towns	44.9	38.4	15.7	0.3	0.7	100.0	1,096	1.0
Rural	80.5	16.9	1.8	0.0	0.8	100.0	7,122	0.0
Zone								
Southern Red Sea	76.2	11.9	10.2	0.2	1.5	100.0	252	0.0
Northern Red Sea	81.9	14.7	2.6	0.1	0.7	100.0	1,070	0.0
Anseba	74.4	20.3	4.2	0.1	1.0	100.0	1,264	0.0
Gash-Barka	87.3	10.3	1.3	0.1	1.0	100.0	1,855	0.0
Southern	73.4	23.0	3.1	0.0	0.4	100.0	3,062	0.0
Central	36.4	35.8	26.0	1.2	0.5	100.0	2,675	2.6
Total	67.3	22.6	9.1	0.4	0.7	100.0	10,178	0.0

Note: Three women for whom the age was not known are included in the table but are not shown separately.

[4] From less than 15 percent of children age six years to around 40 percent of children age eight years in Eritrea attend school. The differences between boys and girls are very small. Even at age nine, the proportion with no education (48 percent) is higher than in the age group 10-14 (data not shown). The lower school attendance for younger children may indicate a slight decline in education or that some children start school at age 10 or even later.

Table 2.5.2 Educational level of the male household population

Percent distribution of the de facto male household population age six and over by highest level of education attended, and median number of years of schooling, according to selected background characteristics, Eritrea 1995

Background characteristic	No education	Primary	Secondary	Higher	Don't know/ missing	Total	Number of men	Median years of schooling
Age								
6-9	63.8	35.2	0.0	0.0	1.0	100.0	1,467	0.0
10-14	32.4	59.4	7.7	0.0	0.5	100.0	1,818	1.9
15-19	27.2	34.8	37.2	0.7	0.1	100.0	1,003	3.9
20-24	33.4	20.0	40.9	5.3	0.4	100.0	519	5.1
25-29	44.5	22.4	27.5	4.4	1.2	100.0	495	2.4
30-34	59.3	16.8	19.3	3.8	0.8	100.0	330	0.0
35-39	62.3	18.2	14.7	3.9	0.8	100.0	338	0.0
40-44	66.0	18.4	11.1	3.6	1.0	100.0	436	0.0
45-49	66.3	17.1	10.3	3.9	2.5	100.0	397	0.0
50-54	78.4	11.3	8.3	1.1	0.9	100.0	303	0.0
55-59	80.9	12.4	4.9	0.9	0.9	100.0	317	0.0
60-64	85.9	8.6	3.2	0.9	1.4	100.0	366	0.0
65+	91.7	5.5	1.1	0.9	0.9	100.0	752	0.0
Residence								
Urban	19.7	39.0	35.5	4.6	1.2	100.0	2,369	4.6
Asmara	14.2	36.5	42.2	6.0	1.1	100.0	1,460	5.7
Other towns	28.6	43.0	24.7	2.2	1.4	100.0	909	2.7
Rural	67.7	26.7	4.6	0.3	0.6	100.0	6,175	0.0
Zone								
Southern Red Sea	66.3	19.0	12.4	1.5	0.8	100.0	227	0.0
Northern Red Sea	65.9	27.3	5.4	0.7	0.7	100.0	897	0.0
Anseba	64.3	26.1	8.2	0.7	0.8	100.0	1,048	0.0
Gash-Barka	79.9	16.0	2.7	0.2	1.3	100.0	1,691	0.0
Southern	56.2	36.1	6.6	0.6	0.4	100.0	2,607	0.0
Central	20.2	38.4	35.9	4.5	1.0	100.0	2,073	4.7
Total	54.4	30.1	13.2	1.5	0.8	100.0	8,544	0.0

Note: Four cases for whom the age was not known are included in the table but are not shown separately.

in rural areas. Because four-fifths of women in rural areas have not attended school, the median years of schooling completed is zero, whereas for urban women the median is 2.7 years and for women in Asmara 3.6 years or almost one year higher than for urban areas as a whole. In the Central Zone which includes Asmara, only 36 percent of women are uneducated, the same proportion have attended primary school, and more than one-quarter (27 percent) have attended at least secondary school. In contrast, 82 percent of women in the Northern Red Sea Zone and 87 percent in the Gash-Barka Zone have no schooling. Educational attainment is also low in other zones; around three-fourths of women have no education. Interestingly, in the Southern Red Sea Zone, although only one-fourth of women have attended school, more than 4 in 10 of those who have attended school have attended secondary or higher school—a proportion slightly higher than even in the Central Zone where the proportion educated is highest.

Educational attainment at each age level is higher for men than women (Table 2.5.2). Almost half (45 percent) of males have attended school versus 32 percent of females. Thirty percent of men have attended primary, 13 percent secondary and 2 percent higher than secondary school. Again, the median years of schooling completed is zero for rural men, but for urban men—those living in Asmara, and other towns—the median years of schooling is 2 years higher than for women living in the same areas. The differentials in education for men by age, residence and zone are very similar to those for women discussed above.

2.1.4 School Enrollment

In Table 2.6, school enrollment ratios by age group, sex and residence for the population age 6 to 24 years are presented. A school enrollment ratio is the number of enrolled persons at a specific age group per hundred persons in that age group. Almost half (48 percent) of children age 6-15 are in school; total urban and Asmara enrollments (85 percent and 92 percent, respectively), are at least 50 percentage points higher than rural enrollment (35 percent). Rural children also start attending school at later ages than urban children. For example, in towns and in Asmara, at age 6 and 7, more than one-half and almost 90 percent of children are enrolled in school while 5 and 15 percent of rural children age 6 and 7, respectively, are attending school (data not shown). The absolute and relative differences in urban and rural enrollment are smaller for age groups 16-20 and 21-24 than for age group 6-15.

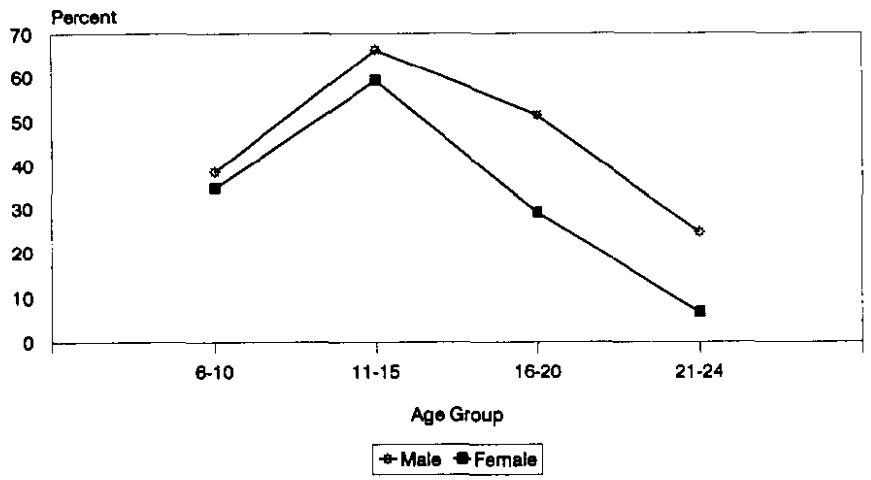
Table 2.6 School enrollment

Percentage of the de facto household population age 6-24 years enrolled in school, by age group, sex, and residence, Eritrea 1995

	Male					Female					Total				
Age group	Urban	Asmara	Other towns	Rural	Total	Urban	Asmara	Other towns	Rural	Total	Urban	Asmara	Other towns	Rural	Total
6-10	78.9	90.2	66.2	25.8	38.5	78.7	87.5	65.9	21.4	34.8	78.8	88.7	66.1	23.5	36.6
11-15	93.9	97.2	88.9	55.9	66.4	89.4	92.0	84.6	44.7	59.3	91.5	94.4	86.8	50.6	62.9
6-15	86.4	93.9	76.6	39.3	51.4	84.3	89.9	74.9	30.8	45.5	85.3	91.8	75.8	35.1	48.4
16-20	77.2	79.0	73.0	46.3	57.5	54.3	61.0	39.5	14.4	29.1	64.3	68.9	53.7	28.5	41.6
21-24	24.4	24.3	24.6	24.8	24.6	13.6	16.9	6.7	2.5	6.6	18.1	20.1	13.9	11.2	13.9

Figure 2.3 and Table 2.6 show that at ages 6-10 and 11-15 the rate of school attendance is only 3 to 7 percentage points lower for girls than for boys. However, at higher ages the gender differences become extremely large. Boys are twice as likely as girls at age 16-20 and four times as likely at age 21-24 to be enrolled in school. The gender disparity in school attendance widens enormously in rural areas at higher ages.

Figure 2.3
Percentage of the Population Age 6-24
Enrolled in School by Age and Sex



EDHS 1995

2.1.5 Employment Status and Occupation of Household Population

For each member of a household age 10 and over who worked during the month preceding the survey, information was collected on the main occupation and the form of payment received. Information for women is summarized in Table 2.7.1; information for men is in Table 2.7.2.

Table 2.7.1 shows that only 17 percent of women age 10-64 and 20 percent of women 15-64 were employed in the month prior to the survey (including 4 percent of women age 10-14 and 14 percent of those 15-19). Between 21 and 28 percent of women age 20-49 were employed, whereas in older age groups the proportion employed decreases from 16 percent among women age 50-54 to 11 percent among those 60-64.

Women who work are more likely than men to be paid in cash only (37 percent). More than half of women (53 percent) were not paid either in cash or in kind.

Table 2.7.1 Employment status: women

Percent distribution of the female household population age 10-64 by employment status and form of earning, according to selected background characteristics, Eritrea 1995

Background characteristic	Employment status: Not employed, in school	Not employed in last month	Employed in last month	Missing	Number of women	Form of earning: Cash	In kind	Both	Not paid	Missing	Number of employed women
Age											
10-14	52.7	37.9	4.4	5.0	1,760	23.1	0.0	0.5	72.3	4.1	78
15-19	39.4	45.9	13.7	1.0	1,171	47.6	6.2	0.0	43.6	2.7	160
20-24	6.3	70.7	22.5	0.6	862	53.9	5.7	0.7	39.4	0.3	194
25-29	0.0	77.8	21.4	0.8	756	51.0	3.9	0.0	42.0	3.0	162
30-34	0.0	77.4	21.5	1.1	664	48.1	9.0	0.7	39.6	2.5	143
35-39	0.0	72.5	26.8	0.7	601	35.6	6.2	0.6	55.9	1.6	161
40-44	0.0	70.8	28.4	0.8	615	26.6	6.0	0.0	61.8	5.6	175
45-49	0.0	71.5	27.8	0.7	537	15.3	8.6	1.9	72.1	2.1	149
50-54	0.0	83.9	15.5	0.6	488	31.5	2.5	0.0	64.3	1.7	76
55-59	0.0	86.1	12.6	1.3	374	(20.1)	(6.1)	(8.9)	(64.8)	(0.0)	47
60-64	0.0	88.2	11.1	0.7	344	(20.1)	(6.5)	(2.6)	(69.0)	(1.8)	38
Residence											
Urban	30.0	48.6	19.5	2.0	2,567	78.3	2.6	0.0	17.1	2.0	500
Asmara	32.6	44.2	20.8	2.4	1,640	82.9	2.4	0.0	12.2	2.4	341
Other towns	25.3	56.3	17.1	1.2	927	68.4	3.1	0.0	27.5	1.0	159
Rural	12.0	70.6	15.7	1.6	5,605	14.3	7.7	1.3	73.9	2.8	883
Zone											
Southern Red Sea	5.8	75.3	17.2	1.6	205	78.7	6.8	0.0	14.6	0.0	35
Northern Red Sea	8.0	83.0	6.6	2.5	848	63.0	10.7	0.7	24.3	1.3	56
Anseba	11.8	77.3	9.0	1.8	1,027	46.6	6.4	0.0	44.4	2.6	93
Gash-Barka	5.4	80.9	12.2	1.5	1,559	42.8	7.6	3.0	41.9	4.7	190
Southern	19.3	52.9	27.0	0.8	2,342	3.5	6.6	0.9	86.8	2.2	633
Central	32.1	48.1	17.2	2.6	2,191	82.0	2.8	0.0	13.0	2.2	376
Women 10-64	17.7	63.7	16.9	1.7	8,171	37.4	5.8	0.9	53.4	2.5	1,383
Women 15-64	8.0	70.8	20.4	0.8	6,412	38.3	6.2	0.9	52.2	2.4	1,305

Note: Figures in parentheses are based on 25 to 49 women.

Table 2.7.2 Employment status: men

Percent distribution of the male household population age 10-64 by employment status and form of earning, according to selected background characteristics, Eritrea 1995

Background characteristic	Employment status: Not employed, in school	Not employed in last month	Employed in last month	Missing	Number of men	Form of earning: Cash	In kind	Both	Not paid	Missing	Number of employed men
Age											
10-14	57.1	26.5	11.2	5.1	1,867	6.3	2.5	1.2	88.5	1.4	210
15-19	56.9	15.7	26.8	0.6	1,057	18.9	6.0	2.5	69.6	2.9	283
20-24	24.1	23.5	51.9	0.5	557	38.6	3.6	3.5	51.6	2.8	289
25-29	0.0	22.5	77.5	0.0	558	40.3	6.6	2.0	48.1	3.0	432
30-34	0.0	14.4	84.8	0.8	405	37.1	4.1	2.5	53.9	2.5	343
35-39	0.0	8.8	90.5	0.7	399	28.5	4.8	3.6	58.9	4.2	361
40-44	0.0	11.8	88.1	0.1	522	24.1	4.3	3.8	65.4	2.4	459
45-49	0.0	11.2	88.7	0.1	464	24.6	5.0	2.9	64.7	2.8	411
50-54	0.0	18.5	81.5	0.0	380	26.2	2.2	5.1	63.7	2.7	310
55-59	0.0	16.6	83.4	0.0	358	18.6	7.2	2.3	70.5	1.3	299
60-64	0.0	27.4	72.3	0.3	409	13.9	5.3	4.6	72.8	3.3	296
Residence											
Urban	40.4	16.9	41.3	1.4	1,956	73.8	2.1	0.7	20.8	2.6	807
Asmara	41.6	17.3	39.5	1.6	1,232	77.7	0.9	0.4	17.9	3.2	486
Other towns	38.3	16.3	44.3	1.1	724	68.1	4.0	1.0	25.2	1.7	321
Rural	20.2	20.6	57.5	1.7	5,020	13.0	5.5	3.8	74.8	2.8	2,886
Zone											
Southern Red Sea	12.7	36.4	49.3	1.5	182	41.9	37.8	0.0	19.3	1.1	90
Northern Red Sea	18.7	26.8	52.2	2.3	736	31.7	1.7	8.7	56.5	1.5	385
Anseba	19.8	31.8	46.4	2.1	891	21.1	0.6	0.0	75.1	3.2	413
Gash-Barka	10.0	22.2	66.4	1.4	1,492	14.1	10.6	7.4	64.1	3.9	991
Southern	30.6	11.0	57.1	1.3	1,961	11.5	1.6	0.3	84.9	1.7	1,120
Central	41.8	16.0	40.5	1.7	1,713	65.9	1.6	0.9	28.2	3.4	695
Men 10-64	25.8	19.6	52.9	1.6	6,976	26.3	4.8	3.1	63.0	2.7	3,693
Men 15-64	14.4	17.1	68.2	0.3	5,108	27.5	4.9	3.3	61.5	2.8	3,483

Overall, 53 percent of the men age 10-64 worked in the month before the survey, including 11 percent of children (age 10-14) and 27 percent of young men age 15-19 (see Table 2.7.2). Among men 15-64, the ages which are generally considered economically active, 68 percent worked. Among men over 20, the percentage ranged from 52 percent in age group 20-24 to 91 percent in age group 35-39, before declining steadily to 72 percent in age group 60-64. Men in rural areas are more likely to work and less likely to be paid in cash or kind than their urban counterparts. Employment levels are also higher in the Gash-Barka and Southern Zones and lower in the Central Zone than in other zones. The reason for lower employment among young men, in urban areas, and the Central Zone is that a substantial proportion of those not employed currently attend school.

Of men age 10-64 who worked in the month preceding the survey, 34 percent received some kind of payment and 63 percent were not paid at all. One-quarter (26 percent) were paid in cash only, 5 percent were paid in kind only, and 3 percent were paid both in cash and in kind.

Tables 2.8.1 and 2.8.2 present information on the occupations of employed persons. Almost 70 percent of employed men age 10-64 work in agriculture and more than half (52 percent) of working women in the same age range are employed in agriculture. The same proportion of men and women are in professional/technical and sales jobs (5 percent each). Men are less likely than women to be service workers (5 percent versus 18 percent) or do government and clerical jobs (2 percent versus 5 percent).

Table 2.8.1 Occupation of the household population: women

Percent distribution of the employed female household population age 10-64 by current occupation, according to selected background characteristics, Eritrea 1995

Background characteristic	Current occupation								Total	Number of women
	Professional/ Technical	Administrative/ Managerial	Government/ Clerical	Sales	Service	Agriculture	Production and related work	Missing		
Age										
10-14	0.0	0.0	0.0	0.0	23.1	75.1	0.0	1.8	100.0	78
15-19	1.0	0.0	0.0	2.5	36.7	49.1	9.4	1.3	100.0	160
20-24	9.8	0.0	10.8	5.3	21.9	40.8	11.1	0.3	100.0	194
25-29	8.7	0.4	10.2	4.5	18.4	38.4	18.8	0.4	100.0	162
30-34	7.5	0.0	10.4	4.6	21.0	37.2	16.7	2.6	100.0	143
35-39	6.2	0.4	5.4	5.8	14.3	54.1	13.3	0.4	100.0	161
40-44	2.8	0.4	1.2	4.9	12.8	62.3	14.5	1.2	100.0	175
45-49	2.7	0.5	0.9	8.3	4.7	68.3	14.1	0.5	100.0	149
50-54	2.8	0.0	0.9	7.3	8.6	55.1	23.6	1.7	100.0	76
55-59	(0.0)	(0.0)	(1.3)	(12.9)	(8.0)	(51.8)	(25.9)	(0.0)	100.0	47
60-64	(0.0)	(0.0)	(0.0)	(11.9)	(4.5)	(49.3)	(34.3)	(0.0)	100.0	38
Residence										
Urban	10.6	0.6	11.3	11.7	40.6	1.6	22.3	1.4	100.0	500
Asmara	11.2	0.8	12.7	10.6	37.8	0.6	24.7	1.6	100.0	341
Other towns	9.3	0.0	8.4	13.9	46.7	3.7	17.0	0.9	100.0	159
Rural	1.5	0.0	1.0	1.9	4.6	80.1	10.3	0.7	100.0	883
Zone										
Southern Red Sea	5.4	0.0	5.4	2.7	66.5	15.9	4.0	0.0	100.0	35
Northern Red Sea	1.8	0.0	6.6	9.2	33.9	29.8	16.6	2.1	100.0	56
Anseba	6.8	0.0	3.5	6.1	25.2	34.2	23.5	0.7	100.0	93
Gash-Barka	2.7	0.0	3.1	2.3	11.5	43.6	34.8	2.1	100.0	190
Southern	0.9	0.0	0.4	2.9	3.1	90.1	2.2	0.3	100.0	633
Central	12.4	0.7	12.8	10.7	36.2	1.9	23.8	1.5	100.0	376
Women 10-64	4.8	0.2	4.7	5.4	17.6	51.7	14.6	1.0	100.0	1,383
Women 15-64	5.1	0.2	5.0	5.7	17.3	50.3	15.5	0.9	100.0	1,305

Note: Figures in parentheses are based on 25 to 49 women

Table 2.8.2 Occupation of the household population: men

Percent distribution of the employed male household population age 10-64 by current occupation, according to selected background characteristics, Eritrea 1995

Background characteristic	Current occupation: Professional/ Technical	Administrative/ Managerial	Government/ Clerical	Sales	Service	Agriculture	Production and related work	Missing	Total	Number of men
Age										
10-14	0.0	0.0	0.0	1.0	0.0	98.2	0.7	0.2	100.0	210
15-19	1.1	0.0	0.8	2.0	3.1	83.9	7.3	1.7	100.0	283
20-24	7.4	0.2	4.3	7.8	4.8	53.9	21.5	0.0	100.0	289
25-29	8.5	0.2	2.8	4.6	6.8	53.5	22.0	1.6	100.0	432
30-34	5.2	0.7	2.9	4.4	6.8	60.1	18.7	1.0	100.0	343
35-39	6.2	0.5	2.2	4.7	6.8	66.2	12.9	0.6	100.0	361
40-44	5.0	0.6	2.8	4.6	4.2	69.9	12.4	0.5	100.0	459
45-49	4.5	0.9	1.5	6.3	4.9	66.9	14.0	0.9	100.0	411
50-54	4.9	0.7	2.3	7.5	3.1	69.4	11.7	0.4	100.0	310
55-59	2.3	0.1	1.0	3.0	3.5	76.5	13.5	0.1	100.0	299
60-64	1.2	0.5	0.2	4.8	5.5	80.0	7.9	0.0	100.0	296
Residence										
Urban	14.7	1.9	8.5	13.2	13.9	8.4	37.9	1.5	100.0	807
Asmara	16.0	1.6	10.7	11.9	12.5	1.6	44.1	1.6	100.0	486
Other towns	12.6	2.4	5.2	15.3	16.0	18.6	28.6	1.3	100.0	321
Rural	1.7	0.0	0.2	2.4	2.2	86.1	6.9	0.5	100.0	2,886
Zone										
Southern Red Sea	14.3	1.1	1.1	9.0	4.3	46.5	22.7	1.0	100.0	90
Northern Red Sea	3.7	0.4	2.0	6.5	5.9	68.0	12.7	0.8	100.0	385
Anseba	2.9	0.6	0.9	6.8	5.6	76.1	6.9	0.2	100.0	413
Gash-Barka	1.3	0.1	0.3	2.8	3.8	84.3	6.5	1.0	100.0	991
Southern	2.6	0.2	0.3	2.4	2.3	85.9	6.2	0.0	100.0	1,120
Central	12.6	1.3	8.1	8.6	9.0	19.7	39.2	1.5	100.0	695
Men 10-64	4.6	0.4	2.0	4.8	4.8	69.1	13.7	0.7	100.0	3,693
Men 15-64	4.8	0.5	2.2	5.0	5.1	67.4	14.4	0.7	100.0	3,483

2.2 Housing Characteristics

The physical characteristics of the household have an important bearing on environmental exposure to disease, as well as reflecting the household's economic condition. Respondents to the Household Questionnaire were asked about a number of characteristics of their housing. Information was collected on: electricity, source and accessibility of drinking water, toilet facilities, floor materials, total number of rooms and number of rooms used for sleeping, whether farm animals were kept in the living areas, and type of fuel and salt used for cooking in the household. Table 2.9 summarizes this information by residence.

Electricity is available almost exclusively in urban areas (see Figure 2.4). Almost all households in Asmara and 58 percent in other towns have electricity. In contrast, only 2 percent of the rural households have electricity. Four in 10 urban households (almost one-half in Asmara and about one-third in other towns) have water piped into the residence, yard, or plot. Three in 10 urban households get water from tanker trucks and 2 in 10 from a public tap. The former source is more common in Asmara and the latter in other towns. Seven percent of urban households (or 16 percent of urban households outside Asmara) obtain water from

Table 2.9 Housing characteristics

Percent distribution of households by housing characteristics, according to residence, Eritrea 1995

Characteristic	Residence				Total
	Urban	Asmara	Other towns	Rural	
Electricity					
Yes	80.6	97.2	57.5	2.1	22.9
No	19.4	2.8	42.5	97.8	77.1
Missing/Don't know	0.0	0.0	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0
Source of drinking water					
Piped into residence	40.5	47.0	31.5	0.0	10.7
Public tap	19.1	12.1	29.0	8.1	11.0
Well in residence	0.4	0.1	0.9	0.1	0.2
Public well	6.5	0.2	15.3	40.8	31.8
Spring	0.3	0.0	0.7	26.0	19.2
River/stream	0.3	0.0	0.6	17.5	12.9
Pond/lake	0.2	0.0	0.4	3.1	2.3
Dam	0.0	0.0	0.0	2.6	1.9
Rainwater	0.0	0.0	0.0	0.0	0.0
Tanker truck	30.5	39.7	17.7	1.4	9.1
Bottled water	0.1	0.1	0.1	0.0	0.0
Private individual	1.9	0.7	3.6	0.1	0.6
Other	--	0.0	0.1	0.1	--
Missing/Don't know	0.1	0.1	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0
Time to water source (in minutes)					
<15 minutes	72.6	81.4	60.4	7.2	24.5
Median time to source	0.9	0.8	5.8	60.0	30.7
Normal wait at water source					
None	70.7	72.0	68.8	66.5	67.6
<5 minutes	0.2	0.1	0.3	0.1	0.1
5-14 minutes	6.5	6.9	6.0	6.5	6.5
15-29 minutes	7.8	6.0	10.3	6.3	6.7
30-34 minutes	8.3	8.2	8.4	7.5	7.7
45-59 minutes	0.8	1.2	0.1	0.8	0.8
60+ minutes	5.5	5.5	5.5	9.1	8.1
Missing	0.2	0.1	0.5	3.3	2.5
Total	100.0	100.0	100.0	100.0	100.0
Sanitation facility					
Own flush toilet	29.9	43.7	10.8	0.1	8.0
Shared flush toilet	15.2	19.9	8.6	0.0	4.0
Traditional pit toilet	18.2	10.7	28.8	0.7	5.3
Vent. imp. pit latrine	2.7	2.9	2.3	0.1	0.8
No facility/bush	33.9	22.8	49.5	99.0	81.8
Missing/Don't know	0.0	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

Continued...

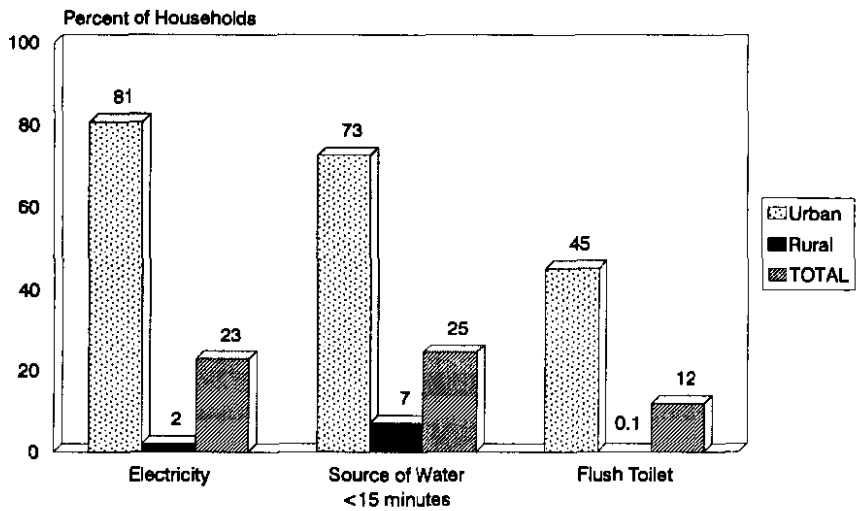
-- Less than 0.05 percent

Table 2.9—*Continued*

Characteristic	Residence				Total
	Urban	Asmara	Other towns	Rural	
Floor material					
Earth/sand	33.7	16.6	57.6	81.2	68.7
Dung	1.2	0.5	2.2	16.2	12.3
Palm/bamboo	0.1	0.1	0.0	0.5	0.3
Parquet/polished wood	0.2	0.2	0.1	0.0	0.1
PVC tiles	34.6	50.6	12.3	0.3	9.3
Cement	30.0	31.7	27.7	1.4	9.0
Carpet	0.2	0.2	0.1	0.0	0.0
Other	0.0	0.0	0.0	0.1	0.1
Missing/Don't know	0.0	0.0	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0
Persons per room					
<2	53.0	55.8	49.1	33.6	38.7
3-4	25.9	24.3	28.1	34.3	32.1
5-6	12.3	11.3	13.7	18.7	17.0
7+	8.8	8.6	9.0	13.0	11.9
Missing/Don't know	0.0	0.0	0.1	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0
Mean number of persons per room	3.0	2.9	3.2	3.8	3.6
Persons per sleeping room					
<2	46.6	48.9	43.4	28.8	33.5
3-4	29.7	29.1	30.4	34.9	33.5
5-6	13.7	12.4	15.5	21.2	19.2
7 +	9.9	9.4	10.6	14.6	13.4
Missing/Don't know	0.1	0.1	0.1	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0
Mean number of persons per sleeping room	3.3	3.2	3.4	4.0	3.8
Farm animals in living area					
Yes	4.9	2.1	8.9	40.8	31.3
Fuel used for cooking					
Gas	4.8	7.1	1.6	0.4	1.6
Electricity	0.9	1.2	0.3	0.0	0.2
Kerosene	63.9	83.4	36.7	2.2	18.5
Coal/charcoal	5.4	1.0	11.5	1.3	2.4
Wood	23.2	6.1	47.1	76.4	62.3
Animal dung cakes	1.0	0.6	1.6	19.5	14.6
Other	0.8	0.6	1.1	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0
Salt used for cooking					
Local salt	97.1	97.0	97.3	99.6	98.9
Packaged salt: iodized	0.7	0.6	0.8	0.0	0.2
Packaged salt: noniodized	1.8	2.2	1.2	0.2	0.6
Salt for animals	--	0.0	0.1	0.1	0.1
Loose salt	0.3	0.2	0.4	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0
Number of households	1,446	842	604	4,023	5,469

-- Less than 0.05 percent

Figure 2.4
Housing Characteristics by Residence



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a public well or a spring. However, two-thirds of rural households depend on these two sources for water. Twenty-one percent of households in rural areas get water from a river, stream, pond or lake, and only 8 percent from a public tap. No rural household has water piped into the residence.

Eight of 10 households in Asmara have easy access to water (i.e., they are within 15 minutes), compared with 6 of 10 in other towns, and less than 1 in 10 in rural areas. The median time to go to the source of drinking water, get water and come back is one hour in rural areas, 1 minute in Asmara and 6 minutes in other towns. For two-thirds of the households, there is no wait at the water source but 1 in 10 households in rural areas and 1 in 18 in urban areas have to wait more than one hour at the water source.

More than one-fifth of households in Asmara, one-half in other towns and almost all rural households have no toilet facility. In urban households, 45 percent either have their own (30 percent) or share a flush toilet (15 percent) with other households (see Figure 2.4) and 21 percent have traditional pit or ventilated pit latrine. Almost two-thirds of households in Asmara use a flush toilet.

The most commonly used flooring materials in Eritrea are earth and sand (69 percent) and dung (12 percent). Almost all households in rural areas, 60 percent in other towns, and 17 percent in Asmara have such floors. Most popular in Asmara are PVC tiles (51 percent), followed by cement floors (32 percent). In contrast, in other towns cement floors (28 percent) are more common than PVC tile floors (12 percent).

The EDHS collected data on the total number of rooms and rooms used for sleeping in a household. This information gives measures of household crowding. There are an average of 3.6 persons per room and 3.8 persons per sleeping room. The average number of persons per room and per sleeping room are not very different, indicating that almost all rooms in the dwelling are used for sleeping. Although median household size is the same in urban and rural areas, rural households are more crowded. For example, on average, 4.0 persons sleep in a room in rural households compared with 3.3 persons in urban households. The crowding is further exacerbated in rural areas by keeping animals in the living quarters at night. Forty-one percent of rural households keep animals at night in the same area where they themselves live.

Kerosene is the major fuel used for cooking in Asmara (83 percent) and is widely used in other towns (37 percent). A small proportion of households in Asmara use gas (7 percent) or wood (6 percent). However, wood is the main fuel used for cooking in other towns (47 percent) and in rural households (76 percent). Coal or charcoal is used almost exclusively in other towns (12 percent) and animal dung cakes are used almost exclusively in rural areas (20 percent). Almost all households use local salt for cooking because, at the time of the survey, iodized salt was not sold in Eritrea, even in Asmara or other towns.

2.2.1 Household Durable Goods

Questions were included in the Household Questionnaire on ownership of durable goods related to access to mass media (radio and television), communication (telephone), food storage (refrigerator), and personal transportation (bicycle, motorcycle, private car, and donkey cart). Like housing characteristics, the availability of durable consumer goods is also a rough measure of household socioeconomic status.

Table 2.10 shows the percentage of households owning certain durable goods by residence. In urban households, almost 80 percent have a radio, one-quarter have a television, and 10 percent have a telephone. Fourteen percent have a refrigerator. The proportion of urban households which own means of transport are as follows: bicycle (21 percent), private car (7 percent), donkey cart (1 percent), and motorcycle (less than 1 percent). Households in Asmara are much more likely to own each durable good especially television, private car and bicycle, compared with households in other towns. Less than 10 percent of households in Asmara do not own any durable good, whereas more than one-third of households in other towns are without any durable goods. In rural areas almost three-quarters of household have none of the durable goods mentioned above. Only two durable goods are owned by rural households: one-quarter have a radio and 2 percent have a bicycle. Household ownership of radios by zone differs substantially (data not shown): Southern Red Sea (28 percent), Gash-Barka (18 percent), Northern Red Sea (26 percent), Anseba (28 percent), Southern (36 percent), and Central (83 percent).

Table 2.10 Household durable goods

Percentage of households possessing various durable consumer goods, by residence, Eritrea 1995

	Residence				
Possessions	Urban	Asmara	Other towns	Rural	Total
Radio	78.6	89.0	64.2	26.2	40.0
Television	25.2	37.9	7.4	0.1	6.7
Telephone	9.8	14.0	3.9	0.0	2.6
Refrigerator	13.5	16.7	9.1	--	3.6
Bicycle	21.2	31.5	6.7	2.2	7.2
Motorcycle	0.5	0.7	0.2	0.0	0.1
Private car	7.1	10.8	1.9	0.3	2.1
Donkey cart	1.2	1.7	0.5	0.4	0.6
None of the above	19.9	9.2	34.8	73.4	59.2
Number of households	1,446	842	604	4,023	5,469

-- Less than 0.05 percent

2.3 Characteristics of Survey Respondents

2.3.1 Background Characteristics

Background characteristics of the 5,054 women and 1,114 men interviewed in the EDHS are presented in Table 2.11. The proportion of respondents declines with increasing age for both sexes except that men's age pattern is interrupted by a lower proportion in age group 30-34 than in age group 35-39. The distributions of men and women by age are not comparable because of a higher upper age limit for eligible men. However, 54 percent of the women and 45 percent of the men are under 30; 24 percent of women and 20 percent of men are in their thirties. Twenty-two percent of women and 21 percent of men are in the age range 40-49 and 13 percent of men interviewed are age 50 or over.

Table 2.11 Background characteristics of respondents

Percent distribution of women and men by selected background characteristics, Eritrea 1995

Background characteristic	Women			Men		
		Number of women			Number of men	
	Weighted percent	Weighted	Un-weighted	Weighted percent	Weighted	Un-weighted
Age						
15-19	22.3	1,129	1,137	21.3	237	251
20-24	16.3	823	844	12.7	142	140
25-29	15.5	782	773	11.4	127	136
30-34	12.6	638	652	9.2	102	99
35-39	11.1	562	576	11.2	125	111
40-44	11.9	603	592	10.5	117	114
45-49	10.2	518	480	10.2	113	110
50-54	NA	NA	NA	6.9	77	84
55-59	NA	NA	NA	6.6	73	69
Residence						
Urban	32.6	1,648	2,520	31.9	356	562
Asmara	20.9	1,059	1,446	20.5	229	316
Other towns	11.7	589	1,074	11.4	127	246
Rural	67.4	3,406	2,534	68.1	758	552
Zone						
Southern Red Sea	2.8	139	273	3.5	39	72
Northern Red Sea	11.0	556	803	9.9	110	164
Anseba	12.7	642	559	12.0	133	114
Gash-Barka	18.9	957	834	20.9	233	187
Southern	27.5	1,392	852	25.6	286	186
Central	27.1	1,368	1,733	28.0	312	391
Marital status						
Never married	20.0	1,009	1,204	35.0	390	439
Married	61.4	3,102	2,864	59.6	664	615
Living together	5.3	270	280	1.0	11	15
Widowed	4.8	240	239	1.5	16	15
Divorced	6.8	345	360	1.9	21	20
Not living together	1.7	88	107	1.1	12	10
Education						
No education	65.9	3,332	2,924	46.7	520	429
Primary incomplete	15.6	786	861	21.9	243	220
Primary complete	8.6	435	566	12.2	136	154
Secondary+	9.9	501	703	19.3	215	311
Religion						
Orthodox	56.7	2,866	2,652	56.9	633	600
Catholic	4.2	211	210	3.4	38	39
Protestant	1.1	56	74	0.8	9	13
Muslim	37.5	1,893	2,094	38.9	433	462
Traditional believer	0.5	24	18	0.0	0	0
Other/missing	0.1	5	6	0.0	0	0
Ethnicity						
Afar	2.5	126	239	2.7	30	52
Bilen	2.6	130	121	3.3	37	39
Hedarib	2.3	118	107	2.9	33	25
Kunama	1.2	62	71	1.2	13	12
Nara	2.7	138	108	2.8	31	22
Rashaida	0.1	4	6	0.1	1	2
Saho	4.8	241	198	3.8	43	38
Tigre	21.0	1,060	1,167	21.9	244	259
Tigrigna	62.0	3,133	2,962	60.4	673	649
Ethiopia	0.7	35	69	0.0	0	0
Other	0.1	3	4	0.7	8	16
Total	100.0	5,054	5,054	100.0	1,114	1,114

NA = Not applicable

The same proportion of males and females are in urban areas (about one-third). This is unexpected since men are more likely to migrate to cities and towns in search of work. For both sexes, the largest proportion of respondents is in the Southern Zone (26-27 percent) and the Central Zone (27-28 percent) while the lowest proportion is in the Southern Red Sea Zone (around 3 percent).

Around 60 percent of women and men are currently married. Male respondents are much more likely than female respondents to have never married because men tend to marry later than women. On the other hand, more women than men report their current marital status as widowed or divorced.

The proportion of women who have never been to school is 19 percentage points or nearly forty percent higher than that of men (66 percent versus 47 percent). Men are also over 40 percent more likely than women to complete primary school and twice as likely to attend secondary school or higher levels of education.

2.3.2 Characteristics of Couples

Because the men who were interviewed individually in the EDHS were selected from households in which women were interviewed, it is possible to match married men with their wives to form a sample of couples. Table 2.12 presents data on 564 couples. In Eritrea, as in most countries, men marry women younger than they are. In less than 2 percent of couples, the wife was older than her husband; among the remaining couples, the husband was almost equally likely to be 0-9 years and 10 years or more older than his wife (see Table 2.12). The mean age difference between spouses is 10 years.

Both wife and husband are educated in only 1 in 6 couples. In 1 in 5 couples, an educated husband has an uneducated wife, and in only 2 percent of couples, the woman is educated and her husband is not. Sixty-two percent of couples have no education.

Table 2.12 Differential characteristics between spouses

Percent distribution of couples by differences between spouses in age and level of education, Eritrea 1995

Characteristic	Percent/ Years	Number of couples
Wife older	1.5	8
Husband older by:		
0-4 years	16.8	95
5-9 years	32.0	181
10-14 years	32.2	182
15 years or more	17.5	99
Mean age difference (years)		
All wives	9.7	564
Education (percent)		
Both husband and wife not educated	61.6	347
Wife educated, husband not	2.3	15
Husband educated, wife not	19.8	111
Both husband and wife educated	16.0	91
Total	100.0	564

2.3.3 Education Level of Survey Respondents

Table 2.13 shows the percent distributions of female and male respondents by the highest level of education attended, according to age, residence, and zone. Younger people have attended higher levels of education than older people. The majority of urban men and almost 3 in 10 urban women have attended secondary school while the overwhelming majority of rural women (83 percent) and a majority of rural men (63 percent) have no education. In contrast, almost the same proportion of men (61 percent) in Asmara have secondary or higher education. Among the zones, the Central Zone stands out in educational attainment. It has higher proportions than any other zone of men and women who have attended secondary school (50 percent and 30 percent, respectively). Forty-five percent of men in the Southern Zone and a majority of men (59-82 percent) and women (71-89 percent) in other zones have no education. Interestingly, the men and women who enter school in the Southern Red Sea Zone are almost as likely to reach at least secondary level of schooling as those who attend school in the Central Zone.

Table 2.13 Level of education

Percent distribution of women and men by the highest level of education attended, according to selected background characteristics, Eritrea 1995

Background characteristic	Highest level of education: No education	Primary incomplete	Primary complete	Secondary+	Total	Number of respondents
WOMEN						
Age						
15-19	38.1	24.5	21.6	15.7	100.0	1,129
20-24	53.5	18.0	8.8	19.6	100.0	823
25-29	71.2	13.5	5.7	9.6	100.0	782
30-34	77.6	11.6	4.4	6.4	100.0	638
35-39	78.7	13.2	3.1	5.0	100.0	562
40-44	83.9	10.6	3.5	2.0	100.0	603
45-49	89.2	8.2	1.3	1.4	100.0	518
Residence						
Urban	29.9	22.7	19.0	28.4	100.0	1,648
Asmara	22.9	20.8	19.8	36.4	100.0	1,059
Other towns	42.6	26.1	17.4	13.9	100.0	589
Rural	83.3	12.1	3.6	1.0	100.0	3,406
Zone						
Southern Red Sea	71.4	8.1	10.2	10.2	100.0	139
Northern Red Sea	84.6	8.6	4.4	2.4	100.0	556
Anseba	73.2	16.3	7.3	3.2	100.0	642
Gash-Barka	88.5	7.7	2.7	1.1	100.0	957
Southern	76.2	17.1	3.9	2.8	100.0	1,392
Central	28.2	22.7	19.6	29.5	100.0	1,368
Total	65.9	15.6	8.6	9.9	100.0	5,054
MEN						
Age						
15-19	17.8	32.5	21.5	28.2	100.0	237
20-24	26.2	17.6	16.5	39.7	100.0	142
25-29	42.7	19.7	12.7	24.9	100.0	127
30-34	53.1	16.9	11.5	18.5	100.0	102
35-39	60.2	20.1	10.0	9.7	100.0	125
40-44	63.8	22.5	7.0	6.7	100.0	117
45-49	57.0	24.9	5.0	13.1	100.0	113
50-54	72.7	16.5	3.3	7.5	100.0	77
55-59	84.1	9.1	5.7	1.0	100.0	73
Residence						
Urban	11.6	18.0	19.1	51.3	100.0	356
Asmara	6.6	12.3	20.3	60.8	100.0	229
Other towns	20.4	28.2	17.0	34.4	100.0	127
Rural	63.1	23.7	8.9	4.3	100.0	758
Zone						
Southern Red Sea	61.8	6.5	10.2	21.5	100.0	39
Northern Red Sea	59.0	23.8	9.9	7.3	100.0	110
Anseba	62.0	16.8	13.0	8.2	100.0	133
Gash-Barka	81.5	10.8	3.1	4.5	100.0	233
Southern	45.3	38.8	8.4	7.5	100.0	286
Central	9.2	18.0	23.0	49.8	100.0	312
Total	46.7	21.9	12.2	19.3	100.0	1,114

2.3.4 School Attendance and Reasons for Leaving School

Women age 15 to 24 years who had attended school and were not currently attending school were asked in the EDHS why they had stopped attending school. One of the most important determinants of a woman's social and economic status is her level of education. Knowledge of the reasons why women leave school can provide guidance for policies designed to enhance women's status.

Table 2.14 shows the percent distribution of women age 15 to 24 years by current enrollment in school whether they are attending school and, if not, their reasons for leaving school, according to highest level of education attended.

A majority of women age 15 to 24 years in Eritrea who have attended school are continuing their education. The proportion currently attending school is highest amongst those who have completed primary but as yet not completed secondary school. After completing secondary school, the women are most likely to discontinue studying in school.

Table 2.14 School attendance and reasons for leaving school

Percent distribution of women 15 to 24 by current school attendance and percent distribution of women not currently attending school by reason for leaving school, according to highest level of education attended, Eritrea 1995

School attendance/ Reason for not attending school	Educational attainment				
	Primary incomplete	Primary complete	Secondary incomplete	Secondary+	Total
School attendance					
Currently attending	36.9	62.4	71.4	29.3	51.0
Not attending	63.1	37.6	28.6	70.7	49.0
Total	100.0	100.0	100.0	100.0	100.0
Reason not attending school					
Got pregnant	3.5	6.5	13.3	2.0	5.2
Got married	43.2	31.7	26.6	3.0	32.8
Take care of younger children	4.3	7.1	1.1	1.6	4.2
Family need help	13.0	5.2	4.3	1.2	8.5
Could not pay school fees	5.1	4.5	3.3	0.0	4.0
Need to earn money	6.8	7.0	5.5	5.7	6.5
Graduated/Enough school	0.0	0.0	1.1	30.5	4.5
Did not pass exams	1.8	6.1	21.2	48.9	11.9
Did not like school	2.6	8.8	6.4	0.0	4.1
School not accessible	5.8	5.0	2.4	0.0	4.4
Due to war	3.8	2.3	1.1	0.0	2.6
Due to health problem	5.5	11.1	7.8	2.7	6.6
Other	1.0	2.1	1.1	1.0	1.3
Don't know/missing	3.7	2.6	4.7	3.3	3.5
Total	100.0	100.0	100.0	100.0	100.0
Number not attending school	269	119	66	76	530

One-third of women who were currently not in school reported that they left because they got married, and another 5 percent said that getting pregnant was the reason for their leaving school. The proportion mentioning these two reasons combined is higher among those have not completed either primary or secondary school than those who have. Only 5 percent of women who have completed secondary school mentioned these two reasons. The next most frequently cited reason is "did not pass examination" (12 percent) which is mentioned by one-fifth of women who have not completed secondary school and almost half of those who have. Nine percent of women who left school mentioned that their family needed money

and 7 percent said that they needed to earn money. Health problems caused 7 percent to leave school. Two reasons account for 84 percent of all women leaving school after completing secondary school: "did not pass examination" and "graduated/had enough schooling."

2.3.5 Access to Mass Media

Table 2.15 shows the percentage of female and male respondents exposed to different types of mass media by age, residence, zone, and level of education. It is important to know which types of persons are more/less likely to be reached by the media for purposes of planning programs intended to spread information about health and family planning. Men have more access to all mass media than women do. Twenty percent of women and 39 percent of men read newspapers or magazines at least once a week, 18 percent of women and 27 percent of men watch television at least once a week, and 53 percent of women and 70 percent of men listen to the radio at least once a week. Eleven percent of women and 23 percent of men have access (at least once a week) to all three media. Forty-six percent and 29 percent of the females and males, respectively, have no access to mass media.

As expected, access to all three mass media is higher for women and for men in urban areas than in rural areas. Access to at least one type of mass media is almost universal for men and around 90 percent for women in urban areas, compared with only 60 percent and 38 percent for men and women in rural areas, respectively. Printed material and television are less accessible to people in rural areas because of lower education and limited electrification. Young women under 25 years, men under 40 years, and educated men and women, are more likely to read newspapers, watch television and listen to the radio than other men and women. Men and women in the Central Zone are more exposed to media than those in other zones. In the Central Zone, the exposure of men to all media is high and to radio it is almost universal. In comparison with men, for women exposure to radio is slightly lower, for television moderately lower and much lower for newspapers. Less than half of women have access to any mass media except in the Central and Southern Zones.

2.3.6 Women's Employment Status

The EDHS collected information from women regarding their current employment situation.[5] Table 2.16 shows that about three-fourths of women are not currently employed. Fifteen percent of women are employed all year (12 percent full-time), 8 percent seasonally, and 1 percent occasionally. The highest percentage employed among women is in the Southern Zone (48 percent), followed by women in Asmara, those 45 and over, and those with secondary school or higher education (almost one-third in each group). Seventy to 92 percent of women in all other categories shown in the table did not work in the 12 months preceding the survey. In Asmara and other towns women are more likely to report year-round employment (26 and 18 percent, respectively) than women in rural areas (11 percent). Regular, year-round employment is also more common in the Central and Southern Red Sea Zones. Similarly, regular full-time work tends to increase and seasonal work decrease with increasing level of education. On the other hand, seasonal work is most common in the Southern Zone, and more common among older women (13 percent among women 45-49) than younger women, in rural areas (11 percent) than in urban areas.

[5] *Employment* is defined as receiving payment in cash or in kind for work.

Table 2.15 Access to mass media

Percentage of women and men who usually read a newspaper once a week, watch television once a week, or listen to radio once a week, by selected background characteristics, Eritrea 1995

Background characteristic	No mass media	Mass media: Read newspaper once a week	Mass media: Watch television once a week	Mass media: Listen to radio once a week	Mass media: All three media	Number of women/ men
WOMEN						
Age						
15-19	29.9	35.6	27.8	66.6	19.7	1,129
20-24	38.6	27.3	22.0	59.4	14.6	823
25-29	52.2	16.3	14.2	46.4	9.1	782
30-34	54.0	14.8	11.8	45.8	7.9	638
35-39	50.8	12.8	12.2	47.8	6.6	562
40-44	55.2	10.4	12.3	42.8	5.3	603
45-49	53.1	7.5	11.7	45.9	4.8	518
Residence						
Urban	11.5	49.6	50.3	84.5	33.0	1,648
Asmara	4.8	59.1	67.3	91.0	45.6	1,059
Other towns	23.6	32.7	19.7	72.8	10.3	589
Rural	62.0	6.0	1.7	37.2	0.4	3,406
Zone						
Southern Red Sea	69.8	16.6	16.2	24.9	8.8	139
Northern Red Sea	66.4	7.9	5.6	33.1	2.6	556
Anseba	59.3	11.0	4.3	39.2	2.3	642
Gash-Barka	72.1	6.2	0.6	26.8	0.1	957
Southern	46.4	10.5	4.1	52.6	1.6	1,392
Central	8.6	49.6	54.1	87.8	36.1	1,368
Education						
No education	64.5	1.0	4.5	34.8	0.4	3,332
Primary incomplete	16.1	41.0	20.2	78.9	12.0	786
Primary complete	4.1	61.7	48.0	91.5	35.2	435
Secondary+	1.4	79.3	73.1	96.5	59.2	501
Total	45.5	20.2	17.5	52.6	11.0	5,054
MEN						
Age						
15-19	23.8	52.8	39.3	74.0	33.2	237
20-24	12.4	56.1	40.4	86.6	35.9	142
25-29	20.6	43.2	29.3	78.7	27.9	127
30-34	28.1	38.2	22.0	69.4	20.1	102
35-39	30.8	30.3	21.2	69.2	20.4	125
40-44	39.6	34.3	14.7	59.4	10.9	117
45-49	37.3	29.3	19.1	60.2	16.7	113
50-54	40.5	23.0	15.5	57.3	12.6	77
55-59	41.4	14.4	17.9	55.9	9.9	73
Residence						
Urban	3.6	78.5	67.5	95.0	59.0	356
Asmara	0.6	85.8	82.3	98.4	73.4	229
Other towns	8.8	65.5	40.8	88.9	33.1	127
Rural	40.2	21.0	8.0	58.1	6.6	758
Zone						
Southern Red Sea	51.9	26.7	22.7	46.9	18.8	39
Northern Red Sea	37.9	34.9	18.0	59.9	14.8	110
Anseba	33.6	27.4	3.0	65.2	2.5	133
Gash-Barka	61.0	15.5	5.7	38.4	5.1	233
Southern	22.6	23.1	10.3	74.0	6.8	286
Central	1.2	80.3	72.0	98.1	64.4	312
Education						
No education	55.3	5.5	3.5	44.0	1.3	520
Primary incomplete	8.9	47.0	20.9	87.9	16.9	243
Primary complete	5.3	72.2	47.1	92.0	40.7	136
Secondary+	0.5	91.9	78.0	98.3	72.7	215
Total	28.5	39.3	27.0	69.9	23.3	1,114

Table 2.16 Women's employment

Percent distribution of women by employment status and continuity of employment, according to selected background characteristics, Eritrea 1995

Background characteristic	Not currently employed		Currently employed						Number of women
	Did not work in last 12 months	Worked in last 12 months	All year		Season-ally	Occasion-ally	Missing	Total	
			5+ days per week	<5 days per week					
Age									
15-19	81.5	1.4	8.1	0.9	6.9	1.2	0.0	100.0	1,129
20-24	71.3	2.1	13.5	4.3	7.0	1.6	0.2	100.0	823
25-29	71.6	2.2	13.0	4.1	7.7	1.1	0.3	100.0	782
30-34	71.1	2.6	13.4	3.4	8.2	1.0	0.2	100.0	638
35-39	71.3	1.4	12.1	4.8	8.1	2.2	0.0	100.0	562
40-44	69.7	1.9	13.9	3.1	9.7	1.4	0.3	100.0	603
45-49	67.8	1.4	14.1	1.9	13.3	1.6	0.0	100.0	518
Residence									
Urban	69.0	2.7	22.2	0.8	2.4	2.7	0.2	100.0	1,648
Asmara	66.4	2.6	25.4	0.6	2.2	2.5	0.2	100.0	1,059
Other towns	73.6	3.0	16.3	1.2	2.7	3.1	0.1	100.0	589
Rural	75.0	1.4	7.3	4.1	11.2	0.8	0.1	100.0	3,406
Zone									
Southern Red Sea	79.8	1.4	12.7	1.1	2.1	2.9	0.0	100.0	139
Northern Red Sea	87.4	1.9	6.0	0.3	3.5	0.9	0.0	100.0	556
Anseba	92.0	0.4	5.3	0.0	0.9	1.4	0.0	100.0	642
Gash-Barka	86.7	1.6	4.0	1.1	5.3	0.8	0.5	100.0	957
Southern	49.3	2.3	15.6	9.5	22.2	1.1	0.0	100.0	1,392
Central	72.2	2.3	20.1	0.6	2.4	2.2	0.2	100.0	1,368
Education									
No education	73.2	1.6	8.8	4.2	10.8	1.3	0.2	100.0	3,332
Primary incomplete	73.8	2.5	15.0	1.7	4.8	1.9	0.2	100.0	786
Primary complete	79.3	1.6	14.4	0.5	2.6	1.6	0.0	100.0	435
Secondary+	65.5	2.5	28.2	0.2	2.4	1.1	0.0	100.0	501
Total	73.0	1.8	12.2	3.1	8.3	1.4	0.1	100.0	5,054

2.3.7 Women's Employer and Form of Earnings

Table 2.17 shows the percent distribution of employed women by type of employer and form of earnings, according to background characteristics. About 32 percent of the women are self-employed, almost the same proportion are employed by relatives, and in both cases the majority do not earn cash. Thirty-seven percent are employed by nonrelatives, the overwhelming majority of whom earn cash. Overall, just over 40 percent of employed women are paid in cash.

Ninety percent of urban women who work work for cash. On the other hand, rural women generally do not get paid in cash for their work and are as likely to work for themselves as for relatives (around 40 percent). The Southern Zone has the highest proportion of women who are self-employed and not receiving cash (45 percent) and the highest proportion of women employed by relatives without getting money (42 percent). Women are more likely to work for relatives in the Gash-Barka Zone than in any other zone: 20 percent earning cash and 29 percent not getting paid in cash. In other zones, most jobs are provided by

Table 2.17 Employer and form of earnings

Percent distribution of currently employed women by employer and form of earnings, according to selected background characteristics, Eritrea 1995

Background characteristic	Self-employed		Employed by a nonrelative		Employed by a relative		Missing	Total	Number of women
	Earns cash	Does not earn cash	Earns cash	Does not earn cash	Earns cash	Does not earn cash			
Age									
15-19	3.9	7.7	39.1	3.0	2.0	44.3	0.0	100.0	194
20-24	4.5	21.0	41.2	5.0	4.3	24.0	0.0	100.0	218
25-29	5.5	33.1	36.3	1.9	3.2	19.3	0.7	100.0	204
30-34	2.2	31.4	35.3	7.7	4.5	18.9	0.0	100.0	166
35-39	6.0	30.8	28.8	5.8	6.9	21.6	0.0	100.0	153
40-44	7.2	28.9	24.6	5.9	5.3	27.3	0.8	100.0	170
45-49	6.2	39.5	17.8	3.7	4.4	28.5	0.0	100.0	160
Residence									
Urban	10.6	2.5	72.4	3.7	6.7	4.1	0.0	100.0	463
Asmara	8.1	2.0	79.1	2.5	4.7	3.6	0.0	100.0	326
Other towns	16.5	3.6	56.6	6.6	11.4	5.3	0.0	100.0	138
Rural	1.8	41.0	9.6	5.1	2.8	39.3	0.3	100.0	802
Zone									
Southern Red Sea	7.8	5.8	80.8	5.6	0.0	0.0	0.0	100.0	26
Northern Red Sea	15.7	13.0	39.6	19.9	1.8	9.9	0.0	100.0	59
Anseba	11.5	0.0	72.5	4.1	1.4	10.5	0.0	100.0	49
Gash-Barka	10.8	16.7	18.7	3.0	19.9	28.5	2.5	100.0	110
Southern	1.2	45.4	5.5	4.4	1.9	41.5	0.0	100.0	673
Central	7.6	1.9	79.2	2.9	5.0	3.4	0.0	100.0	347
Education									
No education	3.5	38.6	15.1	5.0	3.6	33.8	0.3	100.0	838
Primary incomplete	8.9	7.2	52.8	6.2	6.4	18.5	0.0	100.0	184
Primary complete	11.7	0.9	73.2	3.1	6.2	4.9	0.0	100.0	83
Secondary+	5.2	1.9	79.9	1.4	4.1	7.6	0.0	100.0	160
Total	5.0	26.9	32.6	4.6	4.3	26.4	0.2	100.0	1,265

nonrelatives and pay is in cash—from 40 percent of employed women in the Northern Red Sea Zone to around 80 percent in the Central and Southern Red Sea Zones.

Three-fourths of uneducated women do not earn cash for their work: 39 percent work for themselves, 34 percent work for relatives and 5 percent work for others. The proportion of women who are employed by nonrelatives and earn cash increases with education, from 15 percent of women who have had no education to three-fourths of women who completed at least primary school. On the other hand, there is a negative relationship between educational level and working for a relative and not receiving any remuneration.

2.3.8 Women's and Men's Occupation

Information on the current occupation of employed women and men is shown in Tables 2.18.1. and 2.18.2, respectively. A majority of working women (55 percent) have agricultural occupations; 44 percent work on their own land, 6 percent work for others, and 5 percent work on family land. Women who are not working in agriculture range from 9 percent in sales/services to 13 percent working as household and domestic workers. One in 10 employed women has a professional, technical, or managerial occupation.

Table 2.18.1 Occupation: women

Percent distribution of currently employed women by occupation and type of agricultural land worked or type of non-agricultural employment, according to selected background characteristics, Eritrea 1995

Background characteristic	Agricultural				Nonagricultural				Missing	Total	Number of women
	Own land	Family land	Rented land	Other's land	Prof. tech./ manag.	Sales/ services	Skilled manual	Household and domestic			
Age											
15-19	19.6	24.0	0.0	9.3	1.3	4.9	10.4	30.6	0.0	100.0	194
20-24	37.1	4.1	0.0	6.6	17.3	11.7	9.2	14.0	0.0	100.0	218
25-29	45.8	2.9	1.5	4.7	14.2	9.5	10.7	9.7	1.0	100.0	204
30-34	44.9	0.0	0.0	6.8	18.4	6.4	14.4	9.1	0.0	100.0	166
35-39	49.3	0.7	0.0	3.9	10.7	8.8	15.7	10.9	0.0	100.0	153
40-44	49.7	3.5	0.0	7.1	3.9	8.5	15.2	11.3	0.8	100.0	170
45-49	65.7	0.0	0.0	4.2	3.6	11.6	10.6	4.4	0.0	100.0	160
Residence											
Urban	0.6	0.0	0.0	0.9	24.7	19.4	23.8	30.5	0.2	100.0	463
Asmara	0.7	0.0	0.0	0.2	26.1	15.5	26.3	31.0	0.2	100.0	326
Other towns	0.6	0.0	0.0	2.4	21.3	28.5	17.7	29.4	0.0	100.0	138
Rural	68.5	8.5	0.4	9.2	1.8	2.7	5.3	3.2	0.3	100.0	802
Zone											
Southern Red Sea	0.0	0.0	0.0	0.0	15.0	9.4	11.7	63.9	0.0	100.0	26
Northern Red Sea	20.6	0.0	0.0	7.9	9.9	13.1	25.2	23.4	0.0	100.0	59
Anseba	0.0	0.0	0.0	19.6	23.0	10.4	27.0	20.0	0.0	100.0	49
Gash-Barka	40.1	3.5	0.0	2.2	5.5	16.8	18.3	11.1	2.5	100.0	110
Southern	73.3	9.6	0.4	8.8	1.3	3.7	1.7	1.1	0.0	100.0	673
Central	0.6	0.0	0.0	0.5	26.6	15.2	25.9	30.9	0.2	100.0	347
Education											
No education	63.5	5.2	0.4	7.1	0.2	4.7	8.6	10.0	0.3	100.0	838
Primary incomplete	10.8	11.8	0.0	7.8	2.9	17.1	22.6	27.0	0.0	100.0	184
Primary complete	0.0	0.0	0.0	3.6	21.5	18.4	25.0	31.5	0.0	100.0	83
Secondary+	0.0	1.9	0.0	0.5	64.9	15.9	11.4	5.0	0.5	100.0	160
Total	43.6	5.4	0.2	6.2	10.2	8.8	12.1	13.2	0.3	100.0	1,265

Note: Professional, technical, managerial includes professional, technical, clerical and managerial occupations.

Not surprisingly, 87 percent of employed rural women and 76 percent of uneducated women are in agricultural jobs. Working women who live in urban areas or have completed primary education are almost exclusively employed in nonagricultural occupations. Almost one-third of urban women workers are household and domestic workers and 24 percent do skilled manual work. On the other hand, over 90 percent of women in the Southern Zone and slightly less than half of women in the Gash-Barka Zone are in agricultural occupations, whereas in other zones agriculture is not so dominant.

Almost all women who have completed at least primary level of school are in nonagricultural jobs. It is surprising that one-third of employed women who have completed primary school but have not attended secondary school do household and domestic work. Eighty-one percent of women with at least some secondary education hold professional, technical, or managerial jobs (65 percent) or work in occupations related to sales and services (16 percent). Women who have only completed primary school are half as likely to have these occupations as those who have some secondary education.

Table 2.18.2 Employment and occupation: men

Percent distribution of men by employment status and percent distribution of currently employed men by occupation and type of agricultural land worked or type of non-agricultural employment, according to selected background characteristics, Eritrea 1995

	Work status		Agricultural				Nonagricultural						
Background characteristic	Not currently employed	Currently employed	Own land	Family land	Rented land	Other's land	Prof. tech./ manag.	Sales/ services	Skilled manual	Household and domestic	Missing	Total	Number of men
Age													
15-19	74.7	25.3	5.8	47.9	1.2	17.4	0.5	2.6	21.0	2.3	1.2	100.0	237
20-24	32.3	67.7	18.8	30.6	0.0	0.7	8.2	11.4	26.0	4.3	0.0	100.0	142
25-29	10.3	89.7	35.2	12.3	0.0	7.8	12.2	8.0	22.2	1.5	0.8	100.0	127
30-34	5.5	94.5	51.7	6.5	0.7	6.4	13.8	5.7	13.2	1.8	0.0	100.0	102
35-39	3.9	96.1	59.6	2.7	0.9	5.4	6.6	9.4	13.6	1.8	0.0	100.0	125
40-44	9.9	90.1	59.2	3.9	0.0	4.9	8.6	8.6	13.4	1.4	0.0	100.0	117
45-49	4.3	95.7	54.5	5.8	0.8	3.2	10.0	9.2	13.2	3.3	0.0	100.0	113
50-54	6.2	93.8	62.9	0.0	0.0	9.0	7.2	9.0	11.0	0.9	0.0	100.0	77
55-59	14.4	85.6	67.4	3.7	0.0	5.3	2.1	7.9	11.5	2.1	0.0	100.0	73
Residence													
Urban	34.1	65.9	5.3	2.3	0.6	2.0	25.1	18.3	38.5	7.5	0.3	100.0	356
Asmara	37.0	63.0	0.5	0.5	1.0	0.5	30.2	15.6	44.7	6.5	0.5	100.0	229
Other towns	29.0	71.0	12.9	5.1	0.0	4.3	17.1	22.7	28.7	9.1	0.0	100.0	127
Rural	20.7	79.3	63.2	14.8	0.3	7.8	1.8	4.3	7.5	0.1	0.1	100.0	758
Zone													
Southern Red Sea	29.6	70.4	0.0	6.0	0.0	33.8	7.8	12.4	37.9	2.1	0.0	100.0	39
Northern Red Sea	22.1	77.9	41.5	8.5	1.0	12.5	3.9	13.3	14.8	3.4	1.0	100.0	110
Anseba	20.5	79.5	52.7	11.4	0.0	10.4	6.1	11.0	5.3	3.1	0.0	100.0	133
Gash-Barka	12.2	87.8	70.6	7.3	0.0	5.6	3.1	5.7	7.5	0.3	0.0	100.0	233
Southern	23.6	76.4	62.1	22.3	0.0	3.2	2.2	3.3	6.3	0.6	0.0	100.0	286
Central	38.2	61.8	10.8	5.0	1.3	1.0	24.2	12.2	40.3	4.9	0.4	100.0	312
Education													
No education	9.7	90.3	67.3	11.8	0.2	9.4	0.7	3.2	5.8	1.5	0.2	100.0	520
Primary incomplete	28.5	71.5	37.4	14.3	1.1	2.2	1.6	14.8	25.2	3.3	0.0	100.0	243
Primary complete	39.3	60.7	13.0	16.1	0.0	0.7	12.1	16.7	36.9	3.5	0.9	100.0	136
Secondary+	48.9	51.1	0.7	0.7	0.7	2.5	48.8	13.2	31.3	2.2	0.0	100.0	215
Total	25.0	75.0	47.0	11.3	0.4	6.1	8.4	8.3	16.2	2.2	0.2	100.0	1,114

Note: Professional, technical, managerial includes professional, technical, clerical and managerial occupations.

Among men 15-59, 75 percent are currently working and among those 25-59 the proportion working ranges from 86 to 95 percent (see Table 2.18.2). Unemployment is higher in urban areas. Only one-fifth of men in rural areas are not currently employed, compared with 37 and 29 percent of men in Asmara and other towns, respectively. Higher unemployment in urban areas may be partly due to some young persons still pursuing their higher educational goals and not entering the labor force.

Among working men, 65 percent are in the agriculture sector and the remainder have other occupations—16 percent skilled manual, 8 percent professional/technical/managerial, 8 percent sales or services and 2 percent household and domestic.

2.3.9 Decision on Use of Women's Earnings

Information on who decides how to use the cash earned by employed women can be used as a measure of the status of women. Table 2.19 shows that 72 percent of women who receive cash earnings decide for themselves how to spend their money, 15 percent decide jointly with their husband/partner and 11 percent decide jointly with someone other than their husband/partner. Less than one half of one percent

Table 2.19 Decision on use of women's earnings

Percent distribution of women receiving cash earnings by person who decides how earnings are used, according to selected background characteristics, Eritrea 1995

	Person who decides how earnings are used							
Background characteristic	Woman	Husband/ partner	Jointly with husband/ partner	Someone else	Jointly with someone else	Missing	Total	Number of women
Age								
15-19	80.2	0.0	0.0	4.8	14.2	0.8	100.0	87
20-24	70.7	1.3	9.3	4.1	14.6	0.0	100.0	109
25-29	72.9	0.0	13.1	0.0	14.0	0.0	100.0	92
30-34	68.1	0.0	26.9	0.0	4.9	0.0	100.0	70
35-39	72.4	0.0	20.2	0.0	5.7	1.7	100.0	64
40-44	67.2	1.2	23.8	0.0	6.7	1.2	100.0	63
45-49	63.6	0.0	27.1	0.0	9.3	0.0	100.0	45
Residence								
Urban	75.6	0.5	13.8	1.6	8.1	0.4	100.0	416
Asmara	74.3	0.5	15.2	1.0	8.6	0.5	100.0	299
Other towns	78.8	0.6	10.3	3.2	7.0	0.0	100.0	116
Rural	56.6	0.0	20.8	1.7	20.0	0.9	100.0	115
Zone								
Southern Red Sea	(85.2)	(0.0)	(2.1)	(2.1)	(10.6)	(0.0)	100.0	23
Northern Red Sea	66.4	2.1	14.2	0.0	17.2	0.0	100.0	34
Anseba	(92.6)	(0.0)	(4.8)	(0.0)	(0.0)	(2.6)	100.0	42
Gash-Barka	56.9	0.0	17.2	1.1	24.8	0.0	100.0	54
Southern	50.7	0.0	32.8	7.9	8.6	0.0	100.0	58
Central	74.5	0.5	14.2	0.9	9.4	0.5	100.0	319
Education								
No education	72.0	0.4	17.1	0.6	9.0	1.0	100.0	186
Primary incomplete	74.6	0.0	12.6	2.7	10.2	0.0	100.0	126
Primary complete	76.1	0.0	8.1	3.7	11.2	1.0	100.0	76
Secondary+	65.7	1.0	19.2	1.0	13.1	0.0	100.0	143
Marital status								
Currently married	48.3	1.3	46.3	0.4	3.6	0.0	100.0	174
Not married	82.8	NA	NA	2.2	14.1	0.7	100.0	357
Total	71.5	0.4	15.3	1.6	10.7	0.5	100.0	530

Note: Figures in parentheses are based on 25 to 49 women.
NA = Not applicable

of women who earn cash reported that their husband alone decides how their earnings will be used. Younger women (probably because they are not married), urban women, those with less than secondary schooling, and unmarried women are more likely to report that they make their own decisions on how to spend the money they earn.

Three-fourths of women earning cash in urban areas make their own decision on how to use the money they earn, compared with 57 percent of employed women in rural areas. Three-quarters of women in the Central Zone and 85 percent and 93 percent in the Southern Red Sea Zone and the Northern Red Sea Zone, respectively, report that only they decide what to do with the cash they earn. In the Gash-Barka Zone over 40 percent decide jointly with their husband (17 percent) or someone other than their husband (25 percent), whereas in the Southern Zone 49 percent of women depend on others to decide how to spend the cash they earn. In the Southern Zone, one-third decide jointly with their husband, and 7-8 percent each do so jointly with someone else or have only someone else decide for them.

There is an unexpected relationship between level of education and decisions on use of a woman's cash income. About three-fourths of women with no education or primary education report that they alone make decisions about the money they earn, compared with two-thirds of women who have attended secondary school. The most educated group of women has the highest proportion deciding on spending jointly with their partners (19 percent) or with someone else (13 percent). Slightly less than one-half of currently married women make the decision to spend their money themselves and one-half do so with their partner (46 percent) or with someone other than their partner. Only 17 percent of unmarried women do not makc the decision themselves.

2.3.10 Child Care While Working

Table 2.20 shows the percent distribution of employed women by whether they have a child under six years of age and, for those who do, the percent distribution by type of child minder (caretaker) used by the mother while working. Slightly over half (53 percent) of employed women have a child under six years of age.

Almost 90 percent of employed mothers report that children under six are cared for by themselves, their children, and other relatives: respondent (50 percent), female child (17 percent), male child (4 percent), and other relatives (18 percent). Five percent of mothers say that neighbors provide child care and 4 percent report that they depend on servants and hired help. Mothers in Asmara are least likely to mind children while working (14 percent) because they depend to a considerable extent on relatives other than their children (32 percent) and on servants and hired help (26 percent). Their own children, especially female children, are also an important source of child care: female child (19 percent) and male child (4 percent). In other towns, the mother herself is the most important source of child care (37 percent), followed closely by other relatives (33 percent) and older children (13 percent). Rural mothers have less help from other relatives and have no hired help for child care. In rural areas, most mothers themselves provide child care (56 percent), whereas their older children play as important a role as they do for mothers living in urban areas.

By type of child care providers, mothers are undoubtedly the most important source of child care. Relatives other than respondents' own children are an especially important source of child care for women who have completed primary education (60 percent) and for those living in the Anseba Zone (61 percent). Relatives are also fairly important in urban areas, the Central Zone, for women with secondary education, and for those who work for someone else or work only occasionally. Children are as important providers of child care as mothers in the Northern Red Sea Zone. Servants and hired help are used in urban areas (26 percent in Asmara), and are the only nonmaternal child care providers used in the Southern Red Sea Zone (50 percent). Hired help and other relatives are equally important for women with some secondary education (35 percent and 37 percent, respectively).

Table 2.20 Child care while working

Percent distribution of currently employed women by whether they have a child under six years of age at home, and the percent distribution of employed mothers who have a child under six by person who cares for child while mother is at work, according to selected background characteristics, Eritrea 1995

Background characteristic	Employed women with: No child under six at home	One or more children under six at home	Number of employed women	Child's caretaker while mother is at work: Respondent	Other relative	Neighbor/ Friend	Hired help	Child is in school	Other female child	Other male child	Not worked since birth[1]	Other	Missing	Total
Residence														
Urban	73.8	26.2	463	21.6	32.4	4.0	19.9	0.6	16.8	2.4	0.6	0.5	1.2	100.0
Asmara	74.8	25.2	326	14.3	32.1	3.6	25.9	0.9	18.7	3.6	0.9	0.0	0.0	100.0
Other towns	71.2	28.8	138	36.7	33.0	4.9	7.4	0.0	12.6	0.0	0.0	1.7	3.7	100.0
Rural	31.3	68.7	802	56.1	14.6	4.9	0.0	0.0	17.4	4.1	0.9	0.2	1.9	100.0
Zone														
Southern Red Sea	96.2	3.8	26	50.0	*	*	*	*	*	*	*	*	*	100.0
Northern Red Sea	47.4	52.6	59	(38.5)	(8.5)	(8.1)	(4.7)	(0.0)	(37.3)	(0.0)	(0.0)	(2.9)	(0.0)	100.0
Anseba	70.3	29.7	49	*	*	*	*	*	*	*	*	*	*	100.0
Gash-Barka	55.6	44.4	110	(52.5)	(21.4)	(1.3)	(0.0)	(0.0)	(21.2)	(0.0)	(0.0)	(0.0)	(3.6)	100.0
Southern	27.3	72.7	673	57.4	14.2	5.0	0.1	0.0	15.7	4.7	1.0	0.0	2.0	100.0
Central	74.8	25.2	347	14.6	32.6	4.6	24.3	0.8	18.8	3.4	0.8	0.0	0.0	100.0
Education														
No education	36.5	63.5	838	55.6	13.7	4.9	0.1	0.0	19.0	3.9	0.6	0.2	2.1	100.0
Primary incomplete	65.4	34.6	184	51.4	19.4	4.9	5.6	0.0	10.9	4.2	3.1	0.0	0.5	100.0
Primary complete	68.5	31.5	83	9.5	60.2	0.0	8.4	0.0	8.2	8.4	2.8	2.6	0.0	100.0
Secondary+	68.6	31.4	160	8.7	37.3	5.0	35.0	1.5	11.7	0.0	0.0	0.0	0.8	100.0
Work status														
For family member	40.0	60.0	388	60.6	15.7	1.3	0.6	0.0	14.7	4.7	1.3	0.0	1.2	100.0
For someone else	69.6	30.4	471	15.5	33.1	4.5	13.3	0.5	22.3	6.9	1.9	0.5	1.6	100.0
Self-employed	26.9	73.1	404	58.4	12.2	7.5	1.2	0.0	16.9	1.7	0.0	0.3	1.8	100.0
Occupation														
Agricultural	27.1	72.9	701	57.4	14.4	4.7	0.0	0.0	16.6	4.5	0.6	0.2	1.7	100.0
Nonagricultural	71.6	28.4	560	26.3	29.1	4.9	14.7	0.5	19.7	1.8	1.7	0.4	0.9	100.0
Employment status														
All year, full week	55.9	44.1	615	41.2	21.6	5.4	8.4	0.0	17.3	3.6	1.0	0.2	1.3	100.0
All year, part week	19.9	80.1	155	53.8	11.1	4.8	0.0	0.0	23.0	4.8	0.0	0.0	2.4	100.0
Seasonal	39.0	61.0	421	58.2	16.7	4.2	0.6	0.0	13.8	3.9	1.2	0.0	1.5	100.0
Occasional	72.7	27.3	71	38.9	24.2	1.5	0.0	3.8	27.0	0.0	0.0	4.6	0.0	100.0
Total	46.8	53.2	1,265	49.9	17.8	4.7	3.6	0.1	17.3	3.8	0.8	0.2	1.7	100.0

Note: Total includes two women for whom information on employment status was not available. Figures in parentheses are based on 25 to 49 women; an asterisk indicates that a figure is based on fewer than 25 women and has been suppressed.

[1] Respondent is currently employed but has not worked since last birth.

CHAPTER 3

FERTILITY

The measurement of fertility levels, differentials and determinants is a major objective of the EDHS. In the survey, data were collected on current and completed fertility. The chapter begins with a description of current fertility, followed by differentials in fertility. Attention is next focused on trends in fertility; an examination of age-specific fertility rates for time periods going back 15 to 20 years. Sections 3.4 and 3.5 present information on children ever born and birth intervals. The chapter concludes with a presentation of information regarding age of women at first birth and patterns of adolescent childbearing.

The fertility indicators presented in this chapter are based on reports provided by women age 15-49. Each woman in the EDHS was asked to provide information on the total number of sons and daughters to whom she had given birth who were living with her, the number living elsewhere, and the number who had died. Each woman was also asked for a history of all births she had had in her lifetime. In the birth history, women reported on the detailed history of each live birth separately, including such information as: name, month and year of birth, sex, and current survival status. For children who had died, information on age at death was collected.

3.1 Current Fertility

The most widely used measures of current fertility are the total fertility rate (TFR) and its component age-specific fertility rates (ASFR). The TFR is defined as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific rates.[1]

Age-specific and aggregate fertility measures (total fertility rate, general fertility rate, and crude birth rate) for the three years before the survey, are shown in Table 3.1 for all of Eritrea, and for urban and rural areas. The age-specific fertility rates by residence are shown also in Figure 3.1.

Table 3.1 Current fertility

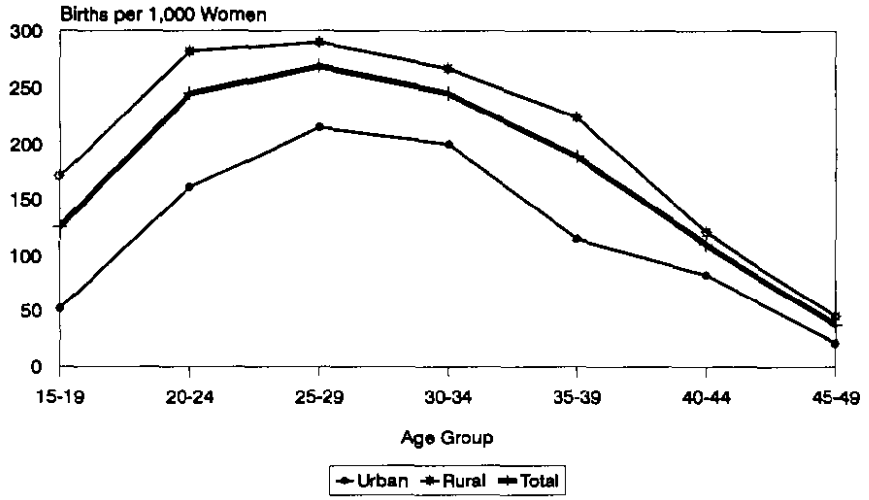
Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by residence, Eritrea 1995

	Residence		
Age group	Urban	Rural	Total
15-19	52	171	125
20-24	161	282	245
25-29	215	290	269
30-34	200	267	245
35-39	115	224	189
40-44	83	121	110
45-49	21	45	37
TFR 15-49	4.23	6.99	6.10
TFR 15-44	4.12	6.77	5.91
GFR	128	231	198
CBR	29.3	40.3	37.5

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate, expressed per woman
GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population

[1] Numerators for the age-specific fertility rates are calculated by summing the number of live births that occurred 1-36 months preceding the survey (determined by the date of interview and birth date of the child), and classifying them by age (in five-year groups) of the mother at the time of birth (determined by the mother's birth date). The denominators of the rates are the number of woman-years lived in each of the specified five-year age groups during the 1-36 months preceding the survey.

Figure 3.1
Age-Specific Fertility Rates
By Urban-Rural Residence



EDHS 1995

The total fertility rate (TFR) for Eritrea is 6.1 children per woman. Peak childbearing occurs during a fairly long span, between age 20 and 34, dropping thereafter. This is true for both urban and rural areas but the drop is more pronounced in urban areas. Fertility among urban women is substantially lower (4.2 children per woman) than among rural women (7.0 children per woman) which means that under the present age schedule of fertility, a woman living in an urban area will have, on average, almost three fewer children (or about 40 percent fewer children) during her childbearing years than a woman living in a rural area. This pattern of lower urban fertility is evident in every age group (Figure 3.1).

3.2 Fertility Differentials

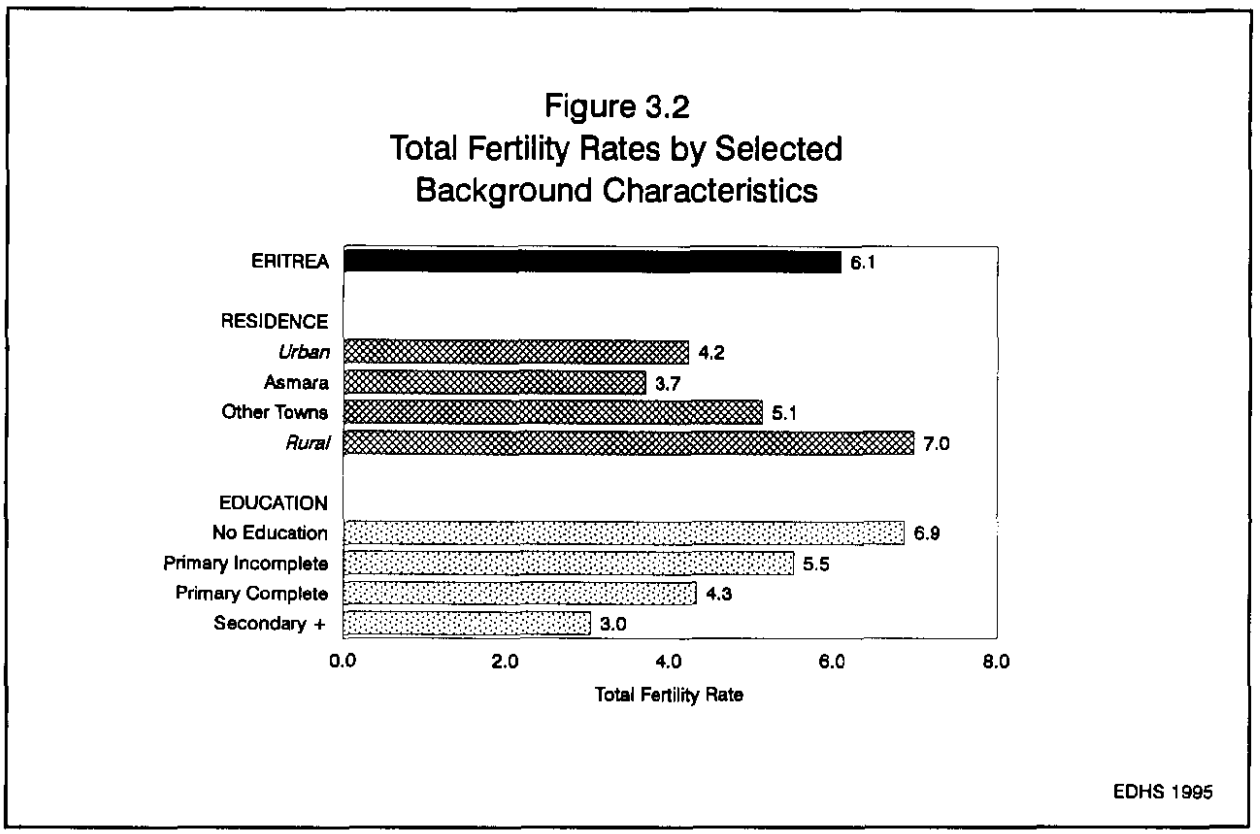
Table 3.2 and Figure 3.2 show differentials in fertility by residence and level of education. The urban-rural differentials have already been discussed. However, the table shows that fertility of women in Asmara

Table 3.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage currently pregnant and mean number of children ever born to women age 40-49, by selected background characteristics, Eritrea 1995

Background characteristic	Total fertility rate[1]	Percentage currently pregnant[1]	Mean number of children ever born to women age 40-49
Residence			
Urban	4.23	5.3	5.38
Asmara	3.72	4.1	5.26
Other towns	5.14	7.5	5.59
Rural	6.99	11.2	6.60
Education			
No education	6.87	11.0	6.34
Primary incomplete	(5.52)	8.4	5.80
Primary complete	(4.33)	4.0	5.66
Secondary+	(3.04)	3.4	4.15
Total	6.10	9.2	6.23

Note: Total fertility rates in parentheses are based on 500-999 women age 15-49.
[1] Women age 15-49 years



(3.7 children per woman) is lower than women in other towns (5.1 children per woman) and is slightly more than half the rate for the women in rural areas. Educational attainment is closely linked to a woman's fertility; the TFR for women with no formal education is 6.9 children per woman, versus 5.5 children for women who attended school but did not complete the primary level, 4.3 for women who had completed primary education, and 3.0 for women with at least some secondary education.

Table 3.2 also allows a general assessment of trends in fertility over time among population subgroups. The mean number of children ever born to women age 40-49 is a measure of fertility in the past. A comparison of current (total) fertility with past (completed) fertility shows that fertility has declined considerably in Asmara and among women with higher education. There has been slight decline in other towns and among women who have attended school but have not completed the primary level. However, fertility may have actually increased in rural areas and among uneducated women. Overall, the comparison of past and present fertility indicators suggests that there has not been any substantial decline in fertility over the past years in Eritrea, especially compared with many African and Near Eastern countries.

At the time of the survey, over 9 percent of interviewed women reported that they were pregnant. This could possibly be an underestimate of the number of women pregnant because many women in the early stages of pregnancy are not yet certain that they are pregnant and some may not want to declare that they are expecting a child.

3.3 Fertility Trends

Table 3.3 gives the age-specific fertility rates for five-year periods preceding the survey, using data from respondents' birth histories. Figures in brackets represent partial fertility rates due to truncation. (Women 50 years of age and older were not included in the survey and the further back into time rates are

calculated, the more severe is the truncation. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years before the survey because those women would have been over age 50 at the time of the survey and were not interviewed.) It should also be noted that misreporting of the date of birth of children can result in the appearance of false trends in fertility.

Evidence from the table suggests that there have been declines in fertility over the last 15 years in all age groups with the exception of the two youngest (i.e., 15-19 and 20-24) which show almost no change or only a slight increase for the period 10-14 to 5-9 years prior to the survey. During the most recent five-year period (5-9 to 0-4 years) prior to the survey the decline is highest for age group 30-34 (16 percent) and slightly less for age group 35-39 (12 percent).

Table 3.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by women's age, Eritrea 1995

	Number of years preceding the survey			
Women's age	0-4	5-9	10-14	15-19
15-19	116	122	120	101
20-24	240	247	243	215
25-29	267	297	298	266
30-34	245	293	308	[278]
35-39	207	234	[279]	-
40-44	113	[165]	-	-
45-49	[41]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates enclosed in brackets are truncated.

Fertility rates for ever-married women by number of years since first marriage for five-year periods preceding the survey are shown in Table 3.4. This table is analogous to Table 3.3, but is confined to ever-married women and replaces age with number of years since first marriage. For the most recent 5-year period (from 5-9 to 0-4 years preceding the survey) fertility has remained virtually unchanged for the 0-4 year marriage duration. During the same period, the decline starting for marriage duration 5-9 years steadily increases with longer marriage durations.

Table 3.4 Trends in fertility by marital duration

Fertility rates for ever-married women by number of years since first marriage, for five-year periods preceding the survey, Eritrea 1995

Marriage duration at birth (years)	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
0-4	260	258	241	189
5-9	294	305	298	271
10-14	260	300	310	285
15-19	236	289	324	[272]
20-24	179	231	[266]	-
25-29	105	[170]	-	-

Note: Fertility rates are per 1,000 women. Estimates enclosed in brackets are truncated.

3.4 Retrospective Fertility

Measures of lifetime fertility reflect the accumulation of births over the past 30 years or so, and therefore, have little relevance for current fertility levels. Information on lifetime fertility is useful for examining average family size across age groups as well as estimating levels of primary infertility. Lifetime fertility is also useful in understanding changes that have taken place in the age pattern of current fertility.

The percent distribution of women by the number of children ever born is presented in Table 3.5 (for all women and for currently married women). The table also shows the mean number of children ever born (CEB) to women in each five-year age group, an indicator of the momentum of childbearing. Women of childbearing age in Eritrea have borne an average of three children and have an average of 2.5 currently living children. On average, women in their early twenties have given birth to about one child, in their late twenties to 2.5 children, by their early thirties to nearly four children, and by their late thirties to around five children. The women currently at the end of their childbearing years have had well over six children. Of the 6.5 children ever born to women age 45-49, only five have survived.

Table 3.5 Children ever born and living

Percent distribution of all women and of currently married women age 15-49 by number of children ever born (CEB) and mean number ever born and living, according to five-year age groups, Eritrea 1995

Age group	Number of children ever born (CEB)											Total	Number of women	Mean no. of CEB	Mean no. of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	81.2	16.0	2.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,129	0.22	0.20
20-24	35.4	30.8	21.9	8.5	2.9	0.4	0.0	0.0	0.0	0.0	0.0	100.0	823	1.14	1.03
25-29	15.9	16.5	19.7	23.0	13.9	7.0	3.0	0.9	0.1	0.0	0.0	100.0	782	2.41	2.06
30-34	9.4	9.0	11.6	15.4	17.1	15.5	12.1	5.1	3.8	0.7	0.3	100.0	638	3.72	3.13
35-39	4.5	5.6	6.4	12.0	14.4	14.2	13.8	14.3	8.8	3.8	2.3	100.0	562	4.94	4.11
40-44	5.0	2.9	5.7	6.5	6.3	13.3	13.9	13.5	14.2	10.0	8.7	100.0	603	6.00	4.75
45-49	2.2	4.1	6.9	6.1	6.9	9.5	11.5	11.1	12.6	12.2	16.9	100.0	518	6.50	5.00
Total	28.9	13.6	10.8	9.6	7.9	7.3	6.4	5.1	4.5	2.9	3.1	100.0	5,054	3.01	2.46
CURRENTLY MARRIED WOMEN															
15-19	51.9	39.7	8.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	366	0.57	0.52
20-24	18.5	34.5	30.1	12.0	4.2	0.6	0.0	0.0	0.0	0.0	0.0	100.0	571	1.51	1.36
25-29	8.0	15.6	21.3	25.1	16.8	8.3	3.7	1.1	0.1	0.0	0.0	100.0	637	2.73	2.34
30-34	4.8	6.8	9.5	16.9	17.9	18.1	13.9	6.4	4.6	0.8	0.4	100.0	513	4.14	3.50
35-39	1.1	3.0	4.4	11.1	14.4	14.4	16.5	16.8	10.8	4.8	2.8	100.0	450	5.50	4.60
40-44	1.5	1.6	2.7	5.2	6.2	13.4	15.5	15.2	17.2	11.8	9.7	100.0	472	6.62	5.26
45-49	1.1	2.1	2.6	3.1	6.5	8.6	10.8	11.1	15.8	15.7	22.6	100.0	362	7.38	5.64
Total	11.5	15.0	12.7	11.9	10.1	9.2	8.3	6.7	6.3	4.1	4.2	100.0	3,371	3.92	3.22

Only 19 percent of all women in the 15-19 age group have ever had a child, implying that early childbearing is not very common in Eritrea.

The results for women who are currently married differ from those for all women, especially at younger ages, because of the large number of young unmarried women with minimal fertility. Differences at older ages generally reflect the impact of marital dissolution (either divorce or widowhood). Only 1 percent of currently married women age 45-49 have never had a child. Under the proposition that desire for children is universal in Eritrea, this 1 percent is a rough measure of primary infertility or the inability to bear children.

3.5 Birth Intervals

Information on the length of birth intervals provides insight into birth spacing patterns. Research has shown that children born too soon after a previous birth are at increased risk of poor health, and at high risk of dying at an early age, particularly when the interval is less than 24 months. Table 3.6 shows the distribution of births in the five-year period before the survey by the interval since the previous birth, according to various demographic and socioeconomic variables.

As in Kenya (NCPD et al., 1994), in Eritrea 1 in 4 births takes place after "too short" an interval (less than 24 months). Almost 4 in 10 births (39 percent) occur 24-35 months after a prior birth, and more than one-third occur three years or more after the previous birth. The median birth interval is 31 months for all births. There is no substantial difference in the length of the birth interval by age of mother, sex of prior birth, place of residence, or birth order. A shorter median interval (28 months) prevails for children whose preceding sibling has died compared to those whose preceding sibling is alive. This pattern presumably

Table 3.6 Birth intervals

Percent distribution of births in the five years preceding the survey by number of months since previous birth, according to demographic and socioeconomic characteristics, Eritrea 1995

Demographic/ Socioeconomic characteristic	Number of months since previous birth					Total	Median number of months since previous birth	Number of births
	7-17	18-23	24-35	36-47	48+			
Age of mother								
15-19	(24.3)	(21.1)	(34.5)	(16.0)	(4.2)	100.0	27.2	33
20-29	12.0	15.5	42.8	18.2	11.5	100.0	30.2	1,184
30-39	9.9	13.5	37.5	22.6	16.5	100.0	32.3	1,387
40 +	10.7	15.1	35.6	19.8	18.9	100.0	31.8	692
Birth order								
2-3	12.0	15.0	34.6	21.0	17.4	100.0	31.7	1,281
4-6	8.8	11.5	43.7	20.8	15.3	100.0	32.2	1,263
7 +	12.8	19.2	38.6	18.5	10.9	100.0	29.1	752
Sex of prior birth								
Male	11.0	14.8	39.0	20.8	14.4	100.0	31.2	1,712
Female	10.9	14.4	39.0	19.9	15.8	100.0	31.3	1,584
Survival status of prior birth								
Living	8.8	14.7	40.3	21.3	15.0	100.0	31.7	2,845
Dead	24.9	14.1	30.8	14.3	15.8	100.0	27.7	450
Residence								
Urban	11.4	16.3	32.8	18.2	21.2	100.0	31.6	667
Asmara	12.9	14.4	29.5	19.5	23.6	100.0	32.8	335
Other towns	10.0	18.1	36.2	16.9	18.8	100.0	30.3	333
Rural	10.9	14.2	40.5	20.9	13.5	100.0	31.2	2,628
Education								
No education	10.6	14.4	39.9	20.9	14.2	100.0	31.2	2,735
Primary incomplete	11.5	16.7	35.3	17.1	19.3	100.0	31.7	354
Primary complete	11.8	8.6	40.2	19.4	20.0	100.0	31.6	116
Secondary+	17.9	20.0	25.0	17.4	19.7	100.0	27.3	90
Total	11.0	14.6	39.0	20.3	15.1	100.0	31.3	3,296

Note: First births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Figures in parentheses are based on 25 to 49 births.

reflects early resumption of sexual intercourse, a shortened breastfeeding period, and minimal use of contraception (perhaps due to the desire to replace the deceased child, as soon as possible).

There is no difference in the length of the birth interval for births to women with less than secondary education. However, women with secondary education tend to have more closely spaced births than women with less education.

3.6 Age at First Birth

The age at first birth is a crucial demographic indicator that usually reflects age at first marriage, level of contraceptive use, and premarital sexual exposure. Early initiation of childbearing is a major determinant of large family size and rapid population growth, particularly in countries where family planning is not widely practiced. Moreover, bearing children at a young age involves substantial risks to the health of both the mother and child. Early childbearing also tends to restrict educational and economic opportunities for women.

Table 3.7 presents the percent distribution of women by age at first birth, according to current age. Childbearing tends to begin late in Eritrea, with the majority of women becoming mothers after age 20. The median age at first birth is around 21 years for most age groups with the exception of women age 35-39 and 40-44, for whom it is 22 years.

Table 3.7 Age at first birth

Percent distribution of women 15-49 by age at first birth, according to current age, Eritrea 1995

Current age	Women with no births	Age at first birth <15	15-17	18-19	20-21	22-24	25+	Total	Number of women	Median age at first birth
15-19	81.2	1.8	12.7	4.3	NA	NA	NA	100.0	1,129	a
20-24	35.4	3.7	23.3	20.4	12.5	4.6	NA	100.0	823	a
25-29	15.9	2.7	17.9	20.1	17.6	18.1	7.7	100.0	782	20.9
30-34	9.4	3.0	20.1	20.3	14.1	17.0	16.1	100.0	638	20.8
35-39	4.5	4.9	13.7	14.6	16.1	23.1	23.1	100.0	562	22.1
40-44	5.0	3.7	15.7	15.3	15.2	18.1	27.0	100.0	603	22.0
45-49	2.2	4.2	21.8	15.6	14.4	15.1	26.6	100.0	518	21.1

NA = Not applicable
[a] Omitted because less than 50 percent of the women in age group *x to x+4* have had a birth by age *x*

Differentials in median age at first birth for women 25-49 are shown in Table 3.8. There is little difference among medians by background characteristics; the median age is between 21 years and 22 years for all groups. For women 25-49, the median age at first birth is 21.4 years, which is higher than reported for many sub-Saharan countries in which DHS surveys have been conducted. For example, the median age at first birth is around 19 years in Kenya (NCPD et al., 1994) Malawi (NSO and MI, 1994) Uganda (SD and

Table 3.8 Median age at first birth

Median age at first birth among women age 25-49 years, by current age and selected background characteristics, Eritrea 1995

Background characteristic	Current age 25-29	30-34	35-39	40-44	45-49	Ages 25-49
Residence						
Urban	22.8	21.6	21.5	21.8	21.2	21.9
Asmara	24.6	22.6	21.8	21.4	20.3	22.1
Other towns	21.0	20.7	21.2	22.4	23.1	21.5
Rural	20.4	20.6	22.2	22.1	21.1	21.2
Zone						
Southern Red Sea	20.1	(20.7)	(22.8)	(20.9)	*	21.0
Northern Red Sea	20.9	21.5	22.7	23.2	22.5	21.8
Anseba	22.3	20.5	21.3	22.6	(22.6)	21.8
Gash-Barka	21.0	20.8	21.8	21.2	20.7	21.2
Southern	19.9	19.8	22.3	22.6	21.2	21.0
Central	23.0	21.8	21.9	21.2	20.2	21.6
Education						
No education	20.3	20.5	22.2	22.1	21.3	21.2
Primary incomplete	22.0	21.2	21.4	21.1	19.9	21.2
Primary complete	21.6	(21.5)	*	(19.6)	*	21.0
Secondary+	a	27.1	(22.7)	*	*	a
Total	20.9	20.8	22.1	22.0	21.1	21.4

Note: The medians for cohorts 15-19 and 20-24 could not be determined because half the women have not yet had a birth. Figures in parentheses are based on 25 to 49 women; an asterisk indicates that a figure is based on fewer than 25 women and has been suppressed.
[a] Omitted because less than 50 percent of the women with secondary or higher education in the age groups 25-29 and 25-49 have had a birth by age 25

MI, 1996), and Zambia (Gaisie et al., 1993). The median age at first birth in Zimbabwe is 19.6 years (CSO and MI, 1995) and 21 years in Namibia (Katjiuanjo et al., 1993).

3.7 Adolescent Fertility

Pregnancy is physically demanding for women at any age but it poses a special health risk for teenagers. Adolescent mothers are more likely to suffer complications during delivery. Similarly, children born to very young mothers are at increased risk of sickness and death. Early pregnancy also has diverse negative demographic, socioeconomic and sociocultural consequences for young girls. Their socioeconomic advancement, such as educational attainment and accessibility to better job opportunities, may be curtailed by early pregnancy. Also, if a young girl is pregnant and unmarried, she is likely to be relegated to less respectable position in society.

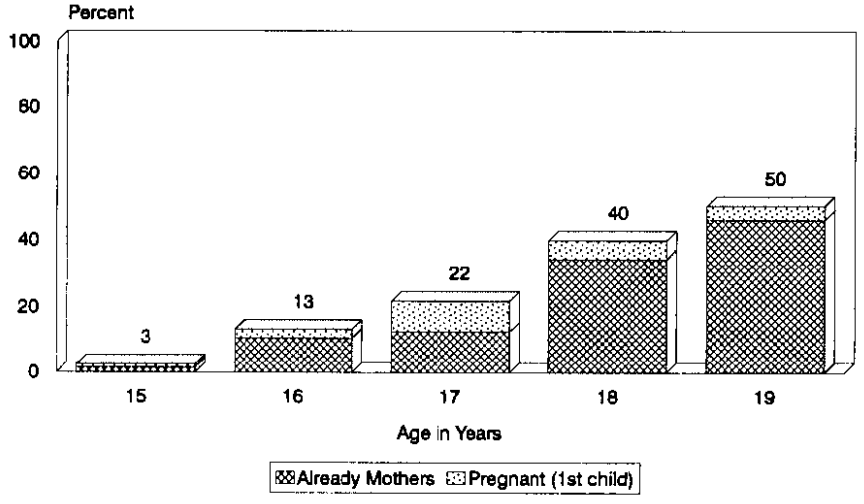
Table 3.9 shows the percent distribution of women age 15-19 who were mothers or were pregnant with their first child at the time of the survey, according to selected background characteristics. Nineteen percent of adolescents are already mothers and another 4 percent are currently pregnant. The proportion of adolescents already on the pathway to family formation rises rapidly with age, from less than 3 percent at age 15 to 50 percent at age 19 (see Figure 3.3). Rural adolescents and those with less education tend to start childbearing earlier. The negative relationship between educational level and early childbearing seems strong, however it should be pointed out that cause and effect can go either way. It may be that girls who have never attended school or who leave school early are also more likely to begin childbearing early. On the other hand, getting married and/or becoming pregnant may also be a cause of girls leaving school early (see Table 2.14).

Table 3.9 Teenage pregnancy and motherhood

Percentage of women 15-19 who are mothers or pregnant with their first child, by selected background characteristics, Eritrea 1995

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number of women
Age				
15	1.5	1.0	2.5	300
16	10.4	2.7	13.1	218
17	12.5	9.2	21.7	191
18	34.3	5.5	39.8	276
19	46.0	4.2	50.2	145
Residence				
Urban	6.1	1.1	7.2	448
Asmara	3.5	0.7	4.2	311
Other towns	11.9	1.9	13.8	137
Rural	27.2	6.3	33.4	680
Education				
No education	33.5	8.1	41.7	431
Primary incomplete	17.5	3.1	20.7	277
Primary complete	6.6	1.3	7.9	244
Secondary+	1.7	0.4	2.1	177
Total	18.8	4.2	23.0	1,129

Figure 3.3
Adolescent Childbearing



EDHS 1995

CHAPTER 4

FERTILITY REGULATION

This chapter presents the EDHS results regarding various aspects of contraceptive knowledge, attitudes, and behavior. While the focus is placed on women, some results from the male survey will also be presented because men play an important role in the realization of reproductive goals. To get an indication of interspousal communication and agreement in the attitudes and knowledge of couples regarding family planning, the responses of men are, where possible, paired with responses obtained from their spouses in the same household.

Family planning methods are grouped into three principal types in the following presentation: modern methods (pill, IUD, injectables, vaginal methods—diaphragm, foam, jelly, and foaming tablets—condom, and female and male sterilization), traditional methods (periodic abstinence, withdrawal, and breastfeeding), and folk methods.

4.1 Knowledge of Contraceptive Methods

Women and men who are adequately informed about their options regarding methods of contraception are better able to develop a rational approach to planning their families. Information on knowledge of contraception was collected by asking the respondent to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked if the respondent recognized it. As married men and women have the greatest level of exposure to the risk of pregnancy, the following presentation places emphasis on these subgroups.

Table 4.1 shows the percentage of all women and men, currently married women and men, and sexually active unmarried women and men, and women with no sexual experience who know specific contraceptive methods. Knowledge of family planning methods is not high; only about two-thirds of women age 15-49 and four-fifths of men age 15-59 know of at least one modern method of family planning. Knowledge of contraceptive methods is slightly more extensive, on average, among men than women. Married women and men know an average of 2.4 and 3.7 methods, respectively.

Among both currently married women and men, the pill is the best known method of family planning, while injectables and condoms are also well known. Condoms tend to be much better known among men. Vaginal methods (diaphragm, foam, jelly, and foaming tablets) and male sterilization are not commonly known among either female or male respondents.

Traditional methods are also not well known by women. Only one-third of currently married women have heard of at least one traditional method. Less than one-fifth of currently married women know about periodic abstinence (rhythm method) and the same proportion mentioned breastfeeding as a family planning method, although breastfeeding was not included in the list of methods in the questionnaire. Less than one-tenth of women know of withdrawal. Knowledge of all methods except breastfeeding is higher among all women than among currently married women. The difference was substantial for condoms and less than three percentage points for other methods.

Only 1 percent of men mentioned breastfeeding as a family planning method. Knowledge of other methods, especially other traditional methods, is much higher among men than women. Sixty-five percent

Table 4.1 Knowledge of contraceptive methods

Percentage of all women, of currently married women, of sexually active unmarried women and of women with no sexual experience and the percentage of all men, of currently married men, and of sexually active unmarried men who know specific contraceptive methods, Eritrea 1995

Contraceptive method	Marital and sexual activity status: women				Marital and sexual activity status: men		
	All women	Currently married women	Sexually active unmarried women	No sexual experience	All men	Currently married men	Sexually active unmarried men
Any method	68.0	63.9	(89.3)	77.0	81.7	81.7	(98.3)
Any modern method	66.3	62.0	(89.3)	76.9	78.9	78.1	(98.3)
Pill	62.7	59.9	(89.3)	69.8	71.5	73.3	(94.7)
IUD	18.2	16.7	(33.7)	20.5	25.0	25.6	(48.9)
Injectables	51.9	51.3	(81.2)	50.7	60.0	62.3	(86.8)
Diaphragm/Foam/Jelly	7.5	6.5	(14.8)	11.3	11.5	9.1	(27.6)
Condom	43.1	34.9	(77.6)	66.6	71.3	68.3	(93.0)
Female sterilization	24.8	24.0	(50.7)	28.1	29.8	29.9	(56.7)
Male sterilization	6.5	5.6	(12.0)	9.7	7.6	7.3	(12.8)
Any traditional method	34.0	33.4	(55.4)	32.3	60.2	65.8	(88.7)
Periodic abstinence	20.5	17.8	(34.9)	27.0	58.7	64.6	(86.5)
Withdrawal	7.8	7.0	(16.4)	9.5	26.2	26.1	(72.3)
Breastfeeding	16.0	18.2	(21.6)	7.3	0.8	1.1	(0.0)
Any folk method	0.3	0.1	(0.0)	1.1	1.0	1.2	(0.0)
Any traditional/folk method	34.0	33.4	(55.4)	32.4	60.4	66.1	(88.7)
Number of respondents	5,054	3,371	26	981	1,114	675	34
Mean number of methods	2.6	2.4	4.3	3.0	3.6	3.7	5.8

Note: Figures in parentheses are based on 25 to 49 respondents.

and 26 percent of currently married men know of periodic abstinence and withdrawal, respectively, compared with 18 percent and 7 percent of currently married women.

Knowledge of modern methods varies little by age for currently married women, but for men knowledge peaks at age 30-34 and then declines as age increases (see Table 4.2). The level of knowledge of at least one modern method is very high in urban areas for both women and men (92 percent and 96 percent, respectively) but is low in rural areas where around half of women and three-fourths of men are aware of modern methods. By zone, the level of knowledge differs more among women than among men. The Gash-Barka Zone has the lowest and the Central Zone the highest level of knowledge for both men and women. Knowledge is also high in the Southern Zone. Only 4 in 10 women in the Northern Red Sea and Anseba Zones know any modern method. Men are more likely than women to know about contraceptive methods in every zone except in the Southern Zone. The difference in knowledge is most notable in the Anseba Zone where currently married men are more than twice as likely to know a modem method as women.

Table 4.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and men who know at least one contraceptive method and at least one modern method, by selected background characteristics, Eritrea 1995

Contraceptive method	Knowledge of contraception: women			Knowledge of contraception: men		
	Know any method	Know modern method	Number of women	Know any method	Know modern method	Number of men
Age						
15-19	62.9	62.1	366	*	*	3
20-24	66.7	65.8	571	(83.8)	(83.8)	43
25-29	64.7	62.5	637	84.1	84.1	77
30-34	61.8	59.7	513	89.4	80.0	86
35-39	64.8	63.0	450	82.0	78.1	116
40-45	62.8	60.8	472	79.6	79.6	104
45-49	62.6	58.9	362	81.0	77.3	107
50-54	NA	NA	NA	80.8	75.1	70
55-59	NA	NA	NA	73.8	68.0	68
Residence						
Urban	91.9	91.6	768	96.5	95.8	165
Asmara	96.6	96.6	451	97.8	97.8	98
Other towns	85.3	84.5	317	94.6	93.0	67
Rural	55.7	53.3	2,604	77.0	72.3	510
Zone						
Southern Red Sea	52.3	52.3	87	(68.9)	(68.9)	20
Northern Red Sea	43.9	40.8	447	78.3	73.1	74
Anseba	40.9	40.3	441	95.8	91.0	90
Gash-Barka	35.4	33.7	735	65.8	59.3	169
Southern	85.9	82.6	1,025	80.3	77.3	188
Central	93.0	93.0	636	98.4	98.4	133
Education						
No education	55.7	53.2	2,636	72.2	66.4	418
Primary incomplete	90.8	90.8	445	95.2	94.9	139
Primary complete	95.7	95.7	136	98.9	98.9	55
Secondary+	99.5	99.5	154	100.0	100.0	63
Total	63.9	62.0	3,371	81.7	78.1	675

Note: Figures in parentheses are based on 25 to 49 men. An asterisk indicates a figure is based on fewer than 25 men and has been suppressed.
NA = Not applicable

Knowledge of methods is related to whether women and men have attended school. Fifty-three and 66 percent of currently married women and men with no schooling know a modern method compared with over 90 percent of women and men who have attended school.

Table 4.3 shows the correspondence between the contraceptive knowledge of husbands and wives (564 couples). In 5 of 10 couples, both the husband and wife know of the pill, in 4 of 10 both know about injectables, and in 3 of 10 both know of condoms. It is interesting to note that for all methods except male sterilization, the proportion of couples in which the husband knows the method while the wife does not exceeds the proportion in which the wife knows the method while the husband does not. The most well-

Table 4.3 Knowledge of contraceptive methods among couples

Percent distribution of couples by contraceptive knowledge, according to specific methods, Eritrea 1995

Contraceptive method	Both know method	Husband knows, wife not	Wife knows, husband not	Neither knows method	Total
Any method	56.6	25.7	8.2	9.4	100.0
Any modern method	55.7	23.0	8.4	12.9	100.0
Pill	51.0	23.1	9.2	16.6	100.0
IUD	10.3	13.5	5.2	70.9	100.0
Injectables	39.8	23.2	15.2	21.8	100.0
Diaphragm/Foam/Jelly	2.7	4.6	4.5	88.2	100.0
Condom	31.5	36.0	2.6	29.9	100.0
Female sterilization	10.7	18.1	13.5	57.6	100.0
Male sterilization	0.8	4.7	5.1	89.3	100.0
Any traditional method	25.7	40.5	5.0	28.8	100.0
Periodic abstinence	14.3	50.5	2.4	32.8	100.0
Withdrawal	3.2	22.4	3.9	70.5	100.0
Breastfeeding	0.1	1.0	16.8	82.1	100.0
Any folk method	0.0	1.4	0.0	98.6	100.0
Any traditional/folk method	25.7	40.8	5.0	28.5	100.0

Note: Table is based on 564 couples.

known methods among couples, when either one or both know the method, are the pill (83 percent), injectables (78 percent), and condoms (70 percent).

4.2 Ever Use of Contraception

All men and women interviewed in the EDHS who said that they had heard of a method of family planning were asked if they had ever used that method. Table 4.4 shows the percentage of women who have ever used family planning, according to method type and age. The table also shows ever use of methods for men. Twelve percent of all women and 15 percent of currently married women reported having used a method of family planning at some time; among currently married women 9 percent have used a modern method and 9 percent have used a traditional method. The methods most commonly used by currently married women are the pill (7 percent), breastfeeding (6 percent), periodic abstinence (3 percent), the IUD and condoms (2 percent each).

Ever use of any method among the youngest cohort of currently married women is 6 percent, 15 percent among women 20-24, and 17-19 percent among women 25-44. Less than 10 percent of women 45-49 have ever used a method.

Table 4.4 also shows that sexually active unmarried women are more likely to report ever use of modern methods (45 percent) than married women (9 percent). However, it should be pointed out that the results for unmarried sexually active women are based on a very small number of cases.

Table 4.4 Ever use of contraception

Percentage of all women, of currently married women, and of sexually active unmarried women who have ever used any contraceptive method, by specific method and age and percentage of all men, currently married men, and sexually active men who have ever used any contraceptive method, Eritrea 1995

		Modern method								Traditional method				
Age	Any method	Any modern method	Pill	IUD	Injectables	Diaphragm/ Foam/ Jelly	Condom	Female sterilization	Male sterilization	Any trad. method	Periodic abstinence	Withdrawal	Breastfeeding	Number of respondents
ALL WOMEN														
15-19	2.0	0.8	0.6	0.0	0.1	0.0	0.2	0.0	0.0	1.2	0.2	0.1	0.9	1,129
20-24	12.2	7.6	6.2	0.8	0.9	0.1	2.3	0.0	0.0	7.7	4.0	0.7	3.5	823
25-29	16.3	8.7	8.0	1.1	1.2	0.1	2.9	0.0	0.0	10.0	3.7	0.9	6.2	782
30-34	17.6	11.1	9.1	2.6	1.4	0.2	3.1	0.1	0.0	10.7	4.8	2.0	5.6	638
35-39	18.5	12.3	9.7	3.4	2.5	0.4	2.1	0.6	0.0	10.1	3.7	1.1	6.3	562
40-44	15.4	7.7	6.6	2.1	1.0	0.1	1.0	0.8	0.0	9.1	1.9	0.6	7.5	603
45-49	9.4	4.3	2.8	1.0	0.8	0.1	0.3	0.6	0.0	5.6	1.0	0.0	4.6	518
Total	12.0	6.9	5.7	1.4	1.0	0.1	1.7	0.2	0.0	7.2	2.6	0.7	4.5	5,054
CURRENTLY MARRIED WOMEN														
15-19	5.6	1.9	1.5	0.0	0.2	0.0	0.4	0.0	0.0	3.7	0.7	0.2	2.8	366
20-24	14.9	9.2	7.5	1.2	1.2	0.1	2.3	0.0	0.0	9.2	4.5	0.9	4.6	571
25-29	17.5	8.6	8.0	1.3	1.1	0.1	2.9	0.0	0.0	11.3	3.9	1.0	7.3	637
30-34	18.8	11.4	8.9	2.7	1.5	0.0	2.9	0.1	0.0	12.1	5.3	2.3	6.6	513
35-39	18.4	12.3	10.2	4.0	2.7	0.5	1.5	0.7	0.0	10.0	3.5	1.0	6.0	450
40-44	17.3	9.1	8.0	2.6	1.1	0.0	1.0	0.9	0.0	10.0	1.8	0.7	8.5	472
45-49	9.1	4.0	2.7	0.8	1.2	0.0	0.0	0.6	0.0	5.5	1.2	0.0	4.3	362
Total	15.2	8.5	7.1	1.8	1.3	0.1	1.7	0.3	0.0	9.3	3.2	0.9	5.9	3,371
SEXUALLY ACTIVE UNMARRIED WOMEN														
Total	(64.6)	(45.2)	(26.8)	(1.2)	(11.4)	(1.2)	(36.5)	(0.0)	(0.0)	(35.9)	(15.4)	(1.2)	(19.3)	26
MEN														
All men	22.0	14.4	5.5	1.3	1.1	0.0	11.2	0.3	0.1	14.0	12.9	3.2	0.4	1,114
Currently married men	26.9	14.7	7.6	2.1	1.8	0.0	9.6	0.5	0.1	20.1	18.7	4.7	0.6	675
Sexually active unmarried men	(88.7)	(86.5)	(15.9)	(2.1)	(0.0)	(0.0)	(84.4)	(0.0)	(0.0)	(30.7)	(26.3)	(4.4)	(0.0)	34

Note: No one reported ever having used any folk method. Figures in parentheses are based on 25 to 49 respondents.

Twenty-seven percent of currently married men report ever having used a method, with 15 percent having used a modern method and 20 percent having used a traditional method. Currently married men report much higher use of condoms (10 percent), periodic abstinence (19 percent), and withdrawal (5 percent) than currently married women. Sexually active unmarried men, though a very small proportion of the total sample, report extremely high levels of ever use of modern methods; however, the data are based on small samples and should be viewed cautiously.

4.3 Current Use of Contraceptive Methods

The contraceptive prevalence rate for Eritrea—the percentage of currently married women who are using a method of family planning—is 8 percent (see Table 4.5.1). Contraceptive users are as likely to use a modern method as a traditional method. The methods most commonly used by currently married women are breastfeeding (3 percent) and the pill (2 percent). Less than 1 percent of women use any of the other methods.

The contraceptive prevalence rate is 3 percent for currently married women age 15-19 and women 45-49. Around 10 percent of currently married women 20-44 are currently using a method, including 3-4 percent who rely on breastfeeding.

Table 4.5.1 Current use of family planning: women

Percent distribution of all women, of currently married women and of sexually active unmarried women by contraceptive method currently used, according to age, Eritrea 1995

		Modern method							Traditional method						
Age	Any method	Any modern method	Pill	IUD	Injectables	Diaphragm/ Foam/ Jelly	Condom	Female sterilization	Any trad. method	Periodic abstinence	Withdrawal	Breastfeeding	Not currently using	Total	Number of women
ALL WOMEN															
15-19	1.2	0.3	0.2	0.0	0.1	0.0	0.0	0.0	0.9	0.0	0.1	0.8	98.8	100.0	1,129
20-24	7.5	3.7	2.1	0.5	0.4	0.0	0.6	0.0	3.9	1.1	0.0	2.8	92.5	100.0	823
25-29	7.8	3.6	2.1	0.6	0.7	0.0	0.2	0.0	4.2	0.6	0.2	3.4	92.2	100.0	782
30-34	7.5	3.6	1.4	0.5	0.8	0.0	0.7	0.1	3.9	1.2	0.4	2.3	92.5	100.0	638
35-39	9.4	6.2	2.6	0.9	1.6	0.1	0.3	0.6	3.2	0.6	0.3	2.3	90.6	100.0	562
40-44	7.9	4.4	2.3	0.7	0.5	0.0	0.1	0.8	3.4	0.7	0.0	2.7	92.1	100.0	603
45-49	2.4	1.5	0.3	0.1	0.4	0.0	0.1	0.6	0.8	0.3	0.0	0.5	97.6	100.0	518
Total	5.9	3.1	1.5	0.4	0.6	0.0	0.3	0.2	2.8	0.6	0.1	2.1	94.1	100.0	5,054
CURRENTLY MARRIED WOMEN															
15-19	3.3	0.6	0.4	0.0	0.2	0.0	0.0	0.0	2.7	0.0	0.2	2.5	96.7	100.0	366
20-24	9.5	4.2	2.4	0.7	0.6	0.0	0.4	0.0	5.3	1.3	0.0	4.0	90.5	100.0	571
25-29	8.9	4.1	2.4	0.7	0.7	0.0	0.3	0.0	4.8	0.6	0.2	3.9	91.1	100.0	637
30-34	8.7	4.0	1.5	0.6	1.1	0.0	0.7	0.1	4.7	1.4	0.4	2.9	91.3	100.0	513
35-39	10.5	6.6	2.8	1.1	1.7	0.2	0.2	0.7	3.9	0.6	0.3	2.9	89.5	100.0	450
40-44	9.1	5.3	2.9	0.8	0.6	0.0	0.0	0.9	3.8	0.9	0.1	2.8	90.9	100.0	472
45-49	3.0	1.8	0.4	0.2	0.6	0.0	0.0	0.6	1.1	0.4	0.0	0.7	97.0	100.0	362
Total	8.0	4.0	2.0	0.6	0.8	0.0	0.3	0.3	4.0	0.8	0.2	3.0	92.0	100.0	3,371
SEXUALLY ACTIVE UNMARRIED WOMEN															
Total	(52.9)	(38.4)	(14.2)	(0.0)	(7.0)	(0.0)	(17.1)	(0.0)	(14.5)	(2.9)	(0.0)	(11.7)	(47.1)	100.0	26

Note: Figures in parentheses are based on 25 to 49 women.

Men report greater use of family planning than women (see Table 4.5.2). The contraceptive prevalence rate for married men age 15-59 is 20 percent; for modern methods, the rate is 7 percent.[1] Higher levels of use of modern methods is consistently reported by men, but most of the female-male difference can be explained by greater reported use of periodic abstinence (12 percent) among men than women (1 percent).

Table 4.5.2 Current use of family planning: men

Percent distribution of all men, of currently married men and of sexually active unmarried men by contraceptive method currently used, according to age, Eritrea 1995

		Modern method							Traditional method						
Age	**Any method**	**Any modern method**	Pill	IUD	Injectables	Condom	Female sterilization	Male sterilization	**Any trad. method**	Periodic abstinence	Withdrawal	Breastfeeding	Not currently using	Total	Number of men
							ALL MEN								
15-19	**0.6**	**0.6**	0.0	0.0	0.0	0.6	0.0	0.0	**0.0**	0.0	0.0	0.0	99.4	100.0	237
20-24	**14.7**	**11.9**	1.5	0.0	0.0	10.4	0.0	0.0	**2.8**	2.8	0.0	0.0	85.3	100.0	142
25-29	**21.9**	**7.9**	0.9	0.0	0.6	6.4	0.0	0.0	**14.0**	11.8	2.2	0.0	78.1	100.0	127
30-34	**17.4**	**8.8**	6.4	0.7	0.0	1.7	0.0	0.0	**8.5**	8.5	0.0	0.0	82.6	100.0	102
35-39	**22.2**	**11.4**	4.2	0.6	1.0	5.6	0.0	0.0	**10.8**	10.8	0.0	0.0	77.8	100.0	125
40-44	**18.1**	**5.9**	3.4	0.6	1.9	0.0	0.0	0.0	**12.3**	12.3	0.0	0.0	81.9	100.0	117
45-49	**27.8**	**10.1**	3.7	2.6	1.9	0.6	1.3	0.0	**17.7**	15.5	0.6	1.6	72.2	100.0	113
50-54	**14.4**	**3.7**	0.9	1.8	0.0	0.0	0.9	0.0	**10.7**	10.7	0.0	0.0	85.6	100.0	77
55-59	**10.5**	**4.0**	0.0	0.0	1.0	0.0	2.0	1.0	**6.5**	6.5	0.0	0.0	89.5	100.0	73
Total	**15.0**	**6.8**	2.2	0.6	0.6	3.0	0.3	0.1	**8.2**	7.7	0.3	0.2	85.0	100.0	1,114
							CURRENTLY MARRIED MEN								
20-24	**11.8**	**6.7**	3.4	0.0	0.0	3.4	0.0	0.0	**5.0**	5.0	0.0	0.0	88.2	100.0	43
25-29	**23.3**	**2.6**	0.0	0.0	0.9	1.7	0.0	0.0	**20.7**	17.1	3.6	0.0	76.7	100.0	77
30-34	**18.5**	**9.3**	7.6	0.8	0.0	0.8	0.0	0.0	**9.3**	9.3	0.0	0.0	81.5	100.0	86
35-39	**21.5**	**10.4**	4.6	0.6	1.1	4.1	0.0	0.0	**11.0**	11.0	0.0	0.0	78.5	100.0	116
40-44	**19.0**	**5.9**	3.8	0.0	2.1	0.0	0.0	0.0	**13.1**	13.1	0.0	0.0	81.0	100.0	104
45-49	**28.8**	**10.0**	3.9	2.7	2.0	0.0	1.4	0.0	**18.8**	16.4	0.7	1.7	71.2	100.0	107
50-54	**15.7**	**4.0**	1.0	2.0	0.0	0.0	1.0	0.0	**11.7**	11.7	0.0	0.0	84.3	100.0	70
55-59	**11.3**	**4.3**	0.0	0.0	1.1	0.0	2.1	1.1	**7.0**	7.0	0.0	0.0	88.7	100.0	68
Total	**19.8**	**7.2**	3.3	0.8	1.1	1.3	0.5	0.1	**12.7**	11.9	0.5	0.3	80.2	100.0	675
							SEXUALLY ACTIVE UNMARRIED MEN								
Total	**(59.6)**	**(51.0)**	(1.4)	(2.1)	(0.0)	(47.4)	(0.0)	(0.0)	**(8.6)**	(8.6)	(0.0)	(0.0)	(40.4)	100.0	34

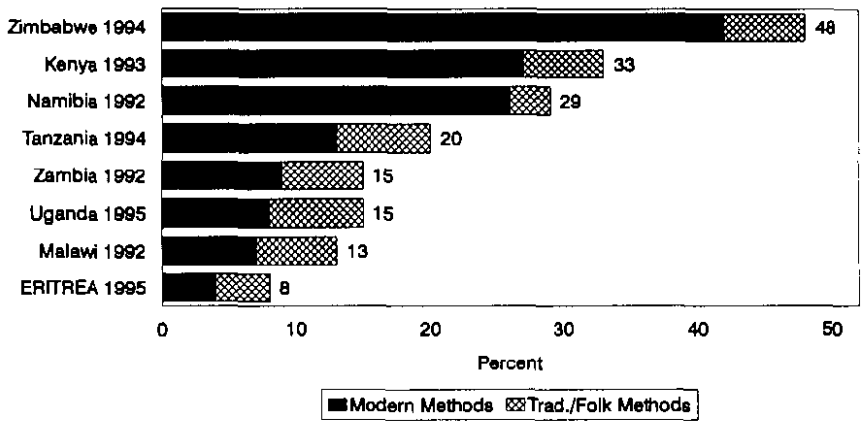
Note: The total for currently married includes 3 men who are not shown separately. Figures in parentheses are based on 25 to 49 men.

Compared with other countries in sub-Saharan Africa where DHS surveys have been conducted since 1992, Burkina Faso and Eritrea have the lowest level of contraceptive use (8 percent).[2] Contraceptive prevalence in selected countries in Southern and East African countries is shown in Figure 4.1.

[1] It should be kept in mind that the rate of contraceptive use among males could be slightly over- or underestimated because men in polygamous or multi-partner relationships may systematically report on the contracepting or non-contracepting union.

[2] Breastfeeding was not included as a contraceptive method in Burkina Faso.

Figure 4.1
Current Use of Family Planning, Selected Countries in Southern and East Africa, 1992-95



Note: Currently married women age 15-49. Eritrea includes 3 percent of women who reported using breastfeeding to prevent pregnancy.

EDHS 1995

Table 4.6 and Figure 4.2 show that some women are more likely to use contraceptives than others. Urban women are much more likely to use modern methods (15 percent) and traditional methods (5 percent) than rural women. One in 4 women in Asmara and 1 in 10 in other towns use some method. In contrast, only 5 percent of rural women use a method and the overwhelming majority rely on breastfeeding. Use of methods is highest in the Central Zone (21 percent), followed by the Southern Zone (9 percent) and Southern Red Sea Zone (6 percent), whereas only 2-4 percent use any method in the remaining zones.

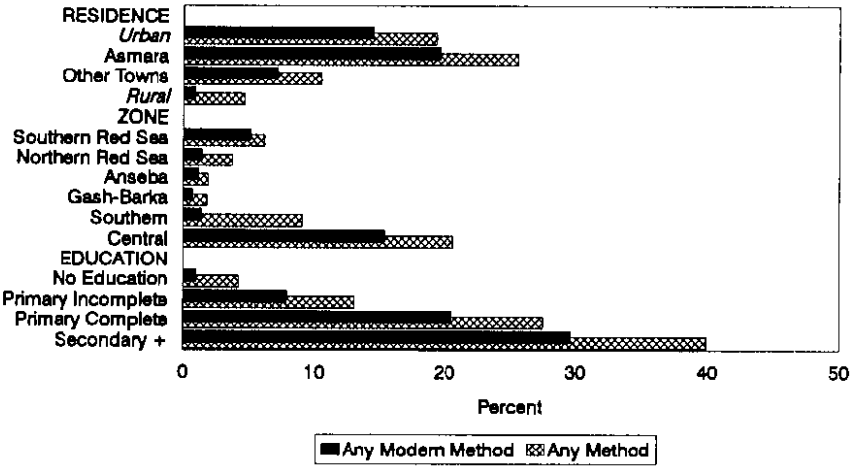
Greater contraceptive use (both modern and traditional methods) was found to be associated with increasing level of education. Use of methods increases from 4 percent among married women with no education to 13 percent among those who have not completed primary school and to 40 percent among women with secondary or higher education. Use of contraceptives is negligible among women who have not started childbearing and is 7 to 11 percent among women with children. The prevalence rate peaks among women who have two children.

Table 4.6 Current use of family planning by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to selected background characteristics, Eritrea 1995

		Modern method							Traditional method						
Background characteristic	Any method	Any modern method	Pill	IUD	Injectables	Diaphragm/ Foam/ Jelly	Condom	Female sterilization	Any trad. method	Periodic abstinence	Withdrawal	Breastfeeding	Not currently using	Total	Number of women
Residence															
Urban	**19.3**	**14.5**	6.6	2.8	2.8	0.1	1.0	1.1	**4.8**	3.0	0.8	1.0	80.7	100.0	768
Asmara	**25.5**	**19.6**	7.8	4.2	4.4	0.2	1.5	1.6	**5.8**	3.6	1.1	1.1	74.5	100.0	451
Other towns	**10.5**	**7.2**	5.0	0.8	0.5	0.0	0.4	0.5	**3.3**	2.2	0.3	0.8	89.5	100.0	317
Rural	**4.6**	**0.9**	0.6	0.0	0.2	0.0	0.0	0.0	**3.7**	0.1	0.0	3.6	95.4	100.0	2,604
Zone															
Southern Red Sea	**6.2**	**5.1**	4.0	0.6	0.0	0.0	0.6	0.0	**1.1**	1.1	0.0	0.0	93.8	100.0	87
Northern Red Sea	**3.7**	**1.4**	1.2	0.0	0.2	0.0	0.0	0.0	**2.3**	0.3	0.0	2.0	96.3	100.0	447
Anseba	**1.9**	**1.2**	0.7	0.2	0.2	0.0	0.0	0.2	**0.6**	0.6	0.0	0.0	98.1	100.0	441
Gash-Barka	**1.8**	**0.7**	0.4	0.1	0.2	0.0	0.0	0.1	**1.1**	0.5	0.0	0.5	98.2	100.0	735
Southern	**9.1**	**1.4**	1.0	0.1	0.1	0.0	0.1	0.1	**7.7**	0.1	0.1	7.5	90.9	100.0	1,025
Central	**20.6**	**15.4**	6.4	3.0	3.6	0.1	1.2	1.2	**5.2**	2.7	0.8	1.7	79.4	100.0	636
Education															
No education	**4.2**	**1.0**	0.6	0.1	0.2	0.0	0.1	0.0	**3.2**	0.2	0.0	3.0	95.8	100.0	2,636
Primary incomplete	**13.1**	**7.9**	3.8	0.9	2.2	0.0	0.3	0.8	**5.2**	1.8	0.5	2.9	86.9	100.0	445
Primary complete	**27.5**	**20.5**	11.1	2.1	3.8	0.0	1.9	1.6	**6.9**	4.2	0.8	2.0	72.5	100.0	136
Secondary+	**39.9**	**29.6**	11.7	8.1	4.8	0.5	2.4	2.1	**10.3**	5.7	1.4	3.1	60.1	100.0	154
No. of living children															
0	**1.2**	**1.0**	0.6	0.0	0.2	0.0	0.0	0.2	**0.3**	0.3	0.0	0.0	98.8	100.0	453
1	**7.1**	**3.1**	1.4	0.8	0.5	0.0	0.4	0.1	**4.0**	1.5	0.3	2.2	92.9	100.0	543
2	**11.4**	**5.1**	3.1	0.6	1.1	0.0	0.3	0.0	**6.3**	1.2	0.3	4.8	88.6	100.0	539
3	**8.8**	**3.7**	1.4	0.9	0.7	0.0	0.6	0.0	**5.1**	0.2	0.2	4.8	91.2	100.0	465
4+	**8.9**	**5.0**	2.4	0.7	1.1	0.1	0.2	0.6	**3.9**	0.7	0.2	3.0	91.1	100.0	1,371
Total	**8.0**	**4.0**	2.0	0.6	0.8	0.0	0.3	0.3	**4.0**	0.8	0.2	3.0	92.0	100.0	3,371

Figure 4.2
Contraceptive Use by Currently Married Women 15-49 according to Background Characteristics



EDHS 1995

4.4 Number of Children at First Use of Contraception

Family planning methods may be used by couples for either spacing births or limiting family size. Table 4.7 shows the distribution of ever-married women by age group and the number of children they had at first use of contraception. The results indicate that Eritrean women are adopting family planning methods at an earlier stage of the family building process than before. Younger cohorts of women reported first use of contraception at lower parity than older cohorts of women. For example, the older cohorts (age 35-44) of ever-married women reported first use after they had a median of 2.6-2.7 living children, compared with around 1.4 living children among the youngest cohorts (under age 30). From another perspective, 4 percent of the women age 20-34 started using contraception before the birth of their first child, compared with less than 1 percent among women over 35.

Table 4.7 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at the time of first use of contraception, and median number of children at first use, according to current age, Eritrea 1995

Current age	Never used contra-ception	Number of living children at time of first use of contraception						Total	Number of women	Median number of children
		0	1	2	3	4+	Missing			
15-19	94.8	1.8	3.2	0.2	0.0	0.0	0.0	100.0	425	1.2
20-24	84.6	4.2	8.4	2.1	0.2	0.5	0.0	100.0	643	1.4
25-29	82.5	4.3	10.4	1.6	1.0	0.1	0.1	100.0	720	1.4
30-34	81.6	4.3	8.2	2.5	1.4	2.0	0.0	100.0	611	1.6
35-39	81.2	0.7	6.9	2.7	2.3	6.1	0.0	100.0	552	2.7
40-44	84.3	0.5	6.3	1.8	0.9	6.1	0.1	100.0	587	2.6
45-49	90.7	0.3	5.0	0.7	0.4	2.9	0.0	100.0	508	1.9
Total	85.1	2.5	7.2	1.7	0.9	2.5	--	100.0	4,045	1.7

-- Less than 0.05 percent

4.5 Knowledge of Contraceptive Effects of Breastfeeding

Information on knowledge of the contraceptive effect of breastfeeding is shown in Table 4.8. Four in 10 currently married Eritrean women believe that breastfeeding does not affect the chance of a woman becoming pregnant. Two in 10 either do not know or believe that breastfeeding increases the risk of pregnancy. Only 30 percent correctly reported that breastfeeding can reduce the risk of pregnancy. Differentials in knowledge of the contraceptive effect of breastfeeding by age among women show that knowledge is highest among women age 40-44 and lowest among women below 20, and varies between 26 to 35 percent among other age cohorts. Correct knowledge on the contraceptive effect of breastfeeding is much higher among women in urban areas, and in the Southern Red Sea, Southern, and Central Zones. Compared with less educated women (30 percent), knowledge that breastfeeding can decrease pregnancy risk is slightly higher among those who have completed primary education and almost 20 percentage points higher among those with secondary or higher education (48 percent).

Table 4.8 Perceived contraceptive effect of breastfeeding

Percent distribution of currently married women by perceived risk of pregnancy associated with breastfeeding and percentage of currently married women who previously relied and who currently rely on breastfeeding to avoid pregnancy and percentage who meet lactational amenorrheic method (LAM) criteria, according to selected background characteristics, Eritrea 1995

Background characteristic	Perceived risk of pregnancy associated with breastfeeding						Reliance on breastfeeding to avoid pregnancy		Meet LAM criteria	Number of women
	Un-changed	In-creased	De-creased	Depends	Don't know/ Missing	Total	Previ-ously	Cur-rently		
Age										
15-19	41.1	7.8	18.7	14.9	17.5	100.0	5.7	5.3	12.0	366
20-24	41.0	12.6	25.6	9.1	11.7	100.0	13.7	11.3	11.2	571
25-29	36.3	12.0	34.8	11.4	5.4	100.0	22.8	14.3	12.9	637
30-34	43.6	13.8	31.0	7.6	4.0	100.0	19.7	15.8	12.9	513
35-39	43.7	14.1	28.5	8.1	5.5	100.0	21.0	15.4	7.8	450
40-44	37.7	12.9	38.4	6.8	4.2	100.0	25.1	16.7	3.4	472
45-49	46.1	11.4	28.3	11.4	2.8	100.0	16.5	9.6	1.3	362
Residence										
Urban	40.0	12.3	36.4	7.0	4.3	100.0	21.8	16.9	7.3	768
Asmara	40.1	14.4	38.5	3.2	3.7	100.0	24.7	19.6	5.5	451
Other towns	39.9	9.1	33.5	12.4	5.1	100.0	17.7	13.1	9.9	317
Rural	41.3	12.3	28.0	10.5	8.0	100.0	17.3	11.9	9.8	2,604
Zone										
Southern Red Sea	19.1	16.8	44.8	4.0	15.4	100.0	6.0	4.2	4.8	87
Northern Red Sea	41.7	10.0	26.0	11.6	10.8	100.0	12.2	9.1	9.3	447
Anseba	42.3	25.3	18.0	5.6	8.8	100.0	10.9	3.8	12.1	441
Gash-Barka	51.5	8.5	20.4	6.4	13.3	100.0	14.5	12.2	6.6	735
Southern	37.0	6.6	37.4	17.1	1.8	100.0	24.9	16.7	11.4	1,025
Central	36.7	17.7	37.8	4.0	3.8	100.0	23.4	18.3	7.5	636
Education										
No education	41.9	12.0	28.6	10.0	7.4	100.0	18.3	12.5	9.4	2,636
Primary incomplete	39.4	12.2	29.8	11.6	7.0	100.0	16.1	13.3	9.1	445
Primary complete	39.1	12.7	34.8	6.2	7.2	100.0	17.9	16.6	11.1	136
Secondary+	30.4	16.3	48.4	3.0	1.7	100.0	25.7	18.6	4.8	154
Total	41.0	12.3	29.9	9.7	7.1	100.0	18.3	13.0	9.3	3,371

About 1 in 5 women has at some time used breastfeeding to avoid pregnancy; 13 percent say they currently rely on breastfeeding as a contraceptive method.[3] Knowledge of the contraceptive effect of breastfeeding and use of breastfeeding to avoid pregnancy are positively correlated with urban residence and increasing level of education. In the Southern Red Sea Zone, although knowledge of the contraceptive effects of breastfeeding is highest (45 percent), current use of the method is low (4 percent). Nine percent of currently married women meet the criteria for use of the lactational amenorrheic method of family planning.[4]

[3] This is higher than the 3 percent who stated that they were currently using this method (see Table 4.6). Most of these women did not consider breastfeeding as a contraceptive method when questioned on knowledge and use of contraception, hence the discrepancy.

[4] Lactational amenorrheic method users are currently married women who are breastfeeding a child under six months of age, are still postpartum amenorrheic, and are not feeding the child anything but breast milk, or breast milk and plain water.

4.6 Source of Family Planning Methods

Information on sources of modern contraceptives is useful for family planning program managers and implementors. In the EDHS, women who reported using a modern method of contraception at the time of the survey were asked where they last obtained the method.

Table 4.9 and Figure 4.3 show that a large majority of current users (78 percent) obtained their methods from public sector sources. The most predominant source of contraceptives in the public sector is the Planned Parenthood Association of Eritrea in Asmara, providing methods to 40 percent of current users of modern methods; it supplies the majority of users of IUDs and injectables, and is also the leading source for the pill (35 percent). Private medical sector sources were reported by 17 percent of current users and other private sources account for 5 percent of current users. Overall, public sector sources supply 73 percent of pill users, 93 percent of IUD users, and 92 percent of injectables users.

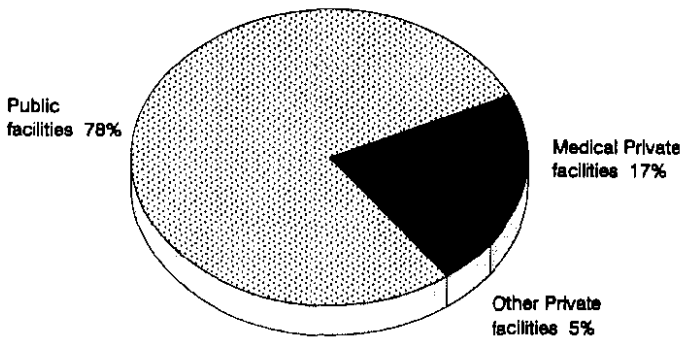
Table 4.9 Source of supply for modern contraceptive methods

Percent distribution of women currently using modern contraceptive methods by most recent source of the method, according to specific methods, Eritrea 1995

	Contraceptive method			
Source of supply	Pill	IUD	Inject-ables	All modern methods[1]
Public	73.0	(93.2)	(91.5)	78.4
Government hospital	18.2	(20.3)	(23.9)	23.6
Government health clinic	19.7	(10.1)	(9.4)	15.1
Planned Parenthood Association of Eritrea	35.1	(62.8)	(58.2)	39.7
Medical private				
Private hospital/clinic	18.3	(6.8)	(8.5)	16.5
Pharmacy	5.3	(3.4)	(2.4)	4.0
Private doctor	11.1	(3.4)	(6.0)	11.6
	1.9	(0.0)	(0.0)	0.9
Other private				
Shop	8.7	(0.0)	(0.0)	4.6
Friends/relatives	0.0	(0.0)	(0.0)	0.3
Other	6.2	(0.0)	(0.0)	3.0
	2.5	(0.0)	(0.0)	1.2
Missing	0.0	(0.0)	(0.0)	0.5
Total	100.0	100.0	100.0	100.0
Number of users	75	22	30	154

Note: Figures in parentheses are based on 25 to 49 women.
[1] Includes one woman using vaginal methods, 20 women using condoms and 17 women using female sterilization

Figure 4.3
Distribution of Current Users of Modern Contraceptive Methods by Source of Supply



EDHS 1995

4.7 Intention to Use Family Planning Among Nonusers

An important indicator of the changing demand for family planning is the extent to which nonusers of contraception intend to use family planning in the future. Women who were not using contraception at the time of the survey were asked about their intention to use family planning in the future. The results are presented in Table 4.10.

Table 4.10 Future use of contraception

Percent distribution of currently married women and men who are not using a contraceptive method by intention to use in the future, according to number of living children, Eritrea 1995

	Number of living children[1]						
Future intentions	0	1	2	3	4+	Total women	Total men
Intend to use in next 12 months	20.0	30.7	23.9	26.1	21.3	23.8	8.9
Intend to use later	5.3	5.9	4.5	4.1	2.4	3.9	8.4
Unsure as to timing	1.4	0.3	0.0	0.8	0.1	0.3	0.1
Unsure as to intention	14.1	8.2	9.1	10.1	7.9	9.1	7.9
Do not intend to use	59.0	54.5	62.2	58.8	68.0	62.5	73.7
Missing	0.2	0.4	0.3	0.0	0.3	0.3	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women/men	340	535	473	435	1,321	3,103	541

[1] Includes current pregnancy

Among currently married women, 28 percent of nonusers say they intend to use family planning in the future—the overwhelming majority in the next 12 months. Sixty-three percent say they do not intend to use, while 9 percent are unsure. The proportion of nonusers intending to use in the next 12 months according to number of living children shows no consistent pattern. Men are less likely than women to use in the future. Only 17 percent of currently married men who are not using a method say that they intend to use family planning in the future (see last column in Table 4.10).

4.8 Reasons for Nonuse of Contraception

Table 4.11 presents the main reasons for not using family planning given by currently married nonusers who do not intend to use a contraceptive method in the future. Desire for more children was the most important reason for not intending to use contraception in future for both men and women regardless of age. Lack of knowledge of methods or a source for methods accounted for 1 in 5 responses of women nonusers. The proportion of men citing these reasons was even higher, in spite of the fact that knowledge of contraceptive methods is higher among men. Eighteen percent of women over age 30 reported that they were menopausal, subfecund or infecund. Only 10 percent of men age 30 or over gave these reasons. The most important difference between men and women is in citing religious prohibition as the reason for nonuse of family planning. Eight percent of men and less than 2 percent of women mentioned this reason for not intending to use in the future. It should be pointed out that 1 in 10 women did not specify the reason for not using.

Table 4.11 Reasons for not using contraception

Percent distribution of currently married women and men who are not using a contraceptive method and who do not intend to use in the future, by main reason for not intending to use, according to age, Eritrea 1995

Reason for not intending to use contraception	Women			Men		
	Age			Age		
	<30	30-49	Total	<30	30-59	Total
Want children	53.2	42.4	46.5	64.6	46.1	49.3
Side effects	0.7	0.5	0.6	2.8	0.3	0.8
Health concerns	0.7	1.9	1.4	0.0	0.0	0.0
Interferes with body	0.0	0.1	0.1	0.0	0.0	0.0
No method known	16.6	14.7	15.4	20.8	23.0	22.6
No source known	5.1	4.2	4.6	4.2	5.7	5.4
Hard to get	0.3	0.5	0.4	0.0	0.4	0.3
No knowledge on use	0.1	0.4	0.3	0.0	0.0	0.0
Religion	1.5	1.7	1.6	6.6	8.7	8.4
Respondent opposed	3.9	4.8	4.5	1.0	3.0	2.7
Partner opposed	0.6	0.3	0.4	0.0	0.8	0.6
Infrequent sex	1.4	1.1	1.2	0.0	0.5	0.4
Menopausal/hysterectomy	0.2	8.2	5.1	0.0	3.2	2.6
Subfecund/infecund	0.4	9.5	6.0	0.0	7.0	5.8
Inconvenient	0.2	0.0	0.1	0.0	0.0	0.0
Other	1.7	1.2	1.4	0.0	0.9	0.8
Don't know	13.4	8.4	10.4	0.0	0.0	0.0
Missing	0.1	0.1	0.1	0.0	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women/men	746	1,194	1,940	69	329	399

4.9 Preferred Method of Contraception for Future Use

Future demand for specific methods of family planning can be assessed by asking non-users who intend to use in the future which method they plan to use. Table 4.12 presents information on method preferences among currently married women who are not using a contraceptive method but who say they intend to use in the future. A majority of women intend to use the pill although the method is most preferred by those who plan to use in the near future. The next most preferred method is injectables, with 23 percent of women mentioning it. Three percent of women who intend to use prefer periodic abstinence. The methods preferred by women who intend to use in the next 12 months and those intending to use later are similar. The main difference between the two groups is in their preference for breastfeeding. Breastfeeding is the preference of 7 percent of women who plan to use a family planning method after 12 months while only 1 percent of women who intend to use a method sooner say it is their preferred method.

Table 4.12 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to timing of intended use, Eritrea 1995

Preferred method of contraception	Timing of intended use: In next 12 months	Timing of intended use: After 12 months	Total
Pill	66.5	54.5	64.7
IUD	2.0	4.2	2.2
Injectables	22.6	22.5	22.7
Diaphragm/Foam/Jelly	0.0	0.0	0.0
Condom	1.1	1.2	1.1
Female sterilization	0.1	1.2	0.3
Periodic abstinence	3.0	4.9	3.3
Withdrawal	0.1	0.0	0.1
Folk method	0.6	0.4	0.5
Breastfeeding	0.8	7.4	1.7
Missing	3.2	3.7	3.3
Total	100.0	100.0	100.0
Number of women	740	121	871

Note: Total includes 10 women who are unsure about the timing of future use.

4.10 Exposure to Family Planning Messages in the Electronic Media

Radio and television are the major potential sources of information about family planning in the electronic media. Information on the level of public exposure to a particular type of media allows policymakers to ensure the use of the most effective media for various target groups. To assess the effectiveness of such media on the dissemination of family planning information, all female and male respondents in the survey were asked if they had heard messages about family planning on radio or seen them on television in the few months preceding the interview.

Table 4.13 shows that a slightly higher proportion of men than women are exposed to the major electronic media. Forty percent of men and 37 percent of women reported that they had heard or seen a family planning message on radio or television during the few months prior to the interview. Only 10 percent of women and 16 percent of men have heard a family planning message on the radio *and* seen a family planning message on the television in the last few months prior to the survey. A total of 17 percent of men and 11 percent of women have been exposed to family planning messages on television.

Sharp contrasts in access to media messages are observed between urban and rural residents. More than three-fifths (78 percent) of women and a slightly smaller proportion of men (73 percent) have not been reached through the media in rural areas, compared with only one-third of urban women and men. The lower exposure of rural populations to media messages is due to the almost exclusive availability of televisions in urban areas and the smaller proportion of households with radios in rural areas (see Table 2.10).

The proportion of respondents who have not been exposed to family planning messages on radio or television varies across zones. About one-third of women and one-fourth of men in the Central Zone had neither seen nor heard family planning messages, compared with 64 percent of women and 72 percent of men

Table 4.13 Heard about family planning on radio and television

Percent distribution of women and of men by whether they have heard a radio and/or television message about family planning in the few months prior to the interview, according to selected background characteristics, Eritrea 1995

	Heard about family planning on radio or television												
	Women						Men						
Background characteristic	Heard on neither	Radio only	Tele-vision only	Heard on both	Total	Number of women	Heard on neither	Radio only	Tele-vision only	Heard on both	Missing	Total	Number of men
Residence													
Urban	32.6	37.2	1.2	28.9	100.0	1,648	31.4	26.7	1.4	40.5	0.0	100.0	356
Asmara	25.4	36.0	1.4	37.2	100.0	1,059	23.4	25.6	2.2	48.7	0.0	100.0	229
Other towns	45.6	39.4	0.9	14.1	100.0	589	45.8	28.6	0.0	25.6	0.0	100.0	127
Rural	78.2	20.8	0.0	1.0	100.0	3,406	73.4	21.4	0.0	5.0	0.2	100.0	758
Zone													
Southern Red Sea	80.2	4.3	0.7	14.8	100.0	139	64.6	17.4	0.0	15.0	3.0	100.0	39
Northern Red Sea	74.0	21.6	0.2	4.2	100.0	556	67.7	12.1	0.0	19.6	0.5	100.0	110
Anseba	80.7	15.7	0.3	3.3	100.0	642	74.1	25.4	0.0	0.5	0.0	100.0	133
Gash-Barka	86.4	13.4	0.1	0.1	100.0	957	77.6	16.2	0.0	6.2	0.0	100.0	233
Southern	63.5	33.7	0.1	2.7	100.0	1,392	72.4	26.4	0.0	1.2	0.0	100.0	286
Central	32.7	36.4	1.1	29.8	100.0	1,368	26.1	28.8	1.6	43.5	0.0	100.0	312
Education													
No education	78.3	19.3	0.1	2.3	100.0	3,332	82.7	14.7	0.0	2.5	0.2	100.0	520
Primary incomplete	45.1	40.5	0.3	14.0	100.0	786	56.2	33.1	0.3	10.4	0.0	100.0	243
Primary complete	32.4	41.1	1.2	25.3	100.0	435	36.1	31.9	0.0	31.6	0.4	100.0	136
Secondary+	18.9	36.0	2.2	42.9	100.0	501	24.5	26.6	2.0	47.0	0.0	100.0	215
Total	63.3	26.1	0.4	10.1	100.0	5,054	60.0	23.1	0.5	16.3	0.2	100.0	1,114

in the Southern Zone. In other zones 74-86 percent of women and 65-78 percent of men had not been exposed to any family planning message on either media.

Education of women and men is closely correlated with media exposure and uneducated men are less exposed to family planning messages than uneducated women; 78 percent of women and 83 percent of men with no formal education had neither heard nor seen a family planning message on the radio or television. On the other hand, 43 percent of women and almost half of men who have attended at least secondary school had exposure on both electronic media. Less than one-fifth of women and one-quarter of men with secondary school or higher education had not been exposed to any family planning message.

4.11 Acceptability of Use of Electronic Media to Disseminate Family Planning Messages

To determine the level of acceptance of the dissemination of family planning information through the media, men and women were asked in the EDHS whether it was acceptable to disseminate family planning information on the radio or television.

Overall, the majority of women and men interviewed reported that it was acceptable to use radio (55-57 percent) to air family planning messages (see Table 4.14). Although there is virtually no difference in the proportion of men and women who consider it unacceptable to have messages about family planning on radio and television (18 percent for women and 19 percent for men), acceptability of television was slightly lower than acceptability of radio among women (52 percent) and much lower among men (43 per-

Table 4.14 Acceptability of media messages on family planning

Percent distribution of women and of men by acceptability of messages about family planning on radio and television, by selected background characteristics, Eritrea 1995

Background characteristic	Acceptability of family planning messages on radio: Acceptable	Not acceptable	Don't know/ Missing	Total	Acceptability of family planning messages on TV: Acceptable	Not acceptable	Don't know/ Missing	Total	Number of respondents
WOMEN									
Age									
15-19	64.7	15.6	19.7	100.0	59.8	15.2	25.0	100.0	1,129
20-24	62.1	14.3	23.6	100.0	57.3	14.7	28.0	100.0	823
25-29	56.2	15.7	28.1	100.0	53.0	15.2	31.8	100.0	782
30-34	52.3	21.2	26.4	100.0	48.1	21.2	30.6	100.0	638
35-39	52.0	20.0	28.0	100.0	46.6	19.5	33.9	100.0	562
40-44	53.5	19.9	26.5	100.0	48.9	20.3	30.8	100.0	603
45-49	45.5	23.7	30.8	100.0	41.3	22.6	36.1	100.0	518
Residence									
Urban	80.1	13.2	6.8	100.0	73.3	15.1	11.5	100.0	1,648
Asmara	85.6	11.5	2.8	100.0	80.9	14.2	4.8	100.0	1,059
Other towns	70.1	16.1	13.8	100.0	59.8	16.6	23.6	100.0	589
Rural	45.4	20.3	34.4	100.0	42.0	19.0	39.0	100.0	3,406
Zone									
Southern Red Sea	30.2	41.7	28.1	100.0	28.8	42.1	29.2	100.0	139
Northern Red Sea	31.5	27.0	41.5	100.0	25.6	26.9	47.5	100.0	556
Anseba	21.3	31.3	47.4	100.0	13.5	27.7	58.9	100.0	642
Gash-Barka	31.8	22.9	45.2	100.0	29.3	22.8	47.9	100.0	957
Southern	81.1	5.9	13.0	100.0	78.6	5.5	15.9	100.0	1,392
Central	78.8	14.4	6.8	100.0	72.9	15.7	11.5	100.0	1,368
Education									
No education	43.1	21.4	35.4	100.0	39.3	20.8	39.8	100.0	3,332
Primary incomplete	76.3	13.8	9.9	100.0	69.1	13.9	17.0	100.0	786
Primary complete	83.2	12.2	4.6	100.0	77.2	12.0	10.7	100.0	435
Secondary+	93.1	6.3	0.7	100.0	89.7	7.9	2.5	100.0	501
Total	56.7	18.0	25.4	100.0	52.2	17.7	30.1	100.0	5,054
MEN									
Age									
15-19	61.7	12.0	26.3	100.0	50.2	13.8	35.9	100.0	237
20-24	71.4	10.0	18.6	100.0	61.5	11.2	27.3	100.0	142
25-29	57.7	24.7	17.6	100.0	43.0	27.5	29.4	100.0	127
30-34	57.4	23.8	18.8	100.0	44.2	20.1	35.6	100.0	102
35-39	57.2	16.9	25.9	100.0	40.6	18.9	40.5	100.0	125
40-44	39.3	25.7	35.0	100.0	29.5	24.5	46.0	100.0	117
45-49	53.4	14.4	32.2	100.0	43.3	15.5	41.1	100.0	113
50-54	35.3	34.8	29.9	100.0	24.6	34.6	40.8	100.0	77
55-59	35.9	25.8	38.4	100.0	19.2	18.2	62.6	100.0	73
Residence									
Urban	81.3	9.8	8.9	100.0	73.4	14.9	11.7	100.0	356
Asmara	88.6	6.0	5.4	100.0	82.0	10.8	7.3	100.0	229
Other towns	68.1	16.6	15.4	100.0	58.0	22.4	19.6	100.0	127
Rural	42.5	23.3	34.2	100.0	28.1	21.2	50.7	100.0	758
Zone									
Southern Red Sea	31.0	49.4	19.6	100.0	22.7	56.1	21.1	100.0	39
Northern Red Sea	33.6	36.3	30.1	100.0	25.3	33.7	40.9	100.0	110
Anseba	27.2	45.3	27.6	100.0	16.1	48.4	35.5	100.0	133
Gash-Barka	26.3	25.1	48.6	100.0	12.9	16.6	70.5	100.0	233
Southern	67.5	4.5	28.0	100.0	49.4	4.7	45.8	100.0	286
Central	87.0	6.5	6.4	100.0	78.2	12.2	9.6	100.0	312
Education									
No education	26.2	29.6	44.2	100.0	14.0	25.3	60.7	100.0	520
Primary incomplete	68.1	13.9	18.0	100.0	52.4	16.5	31.1	100.0	243
Primary complete	79.3	9.8	10.9	100.0	62.9	16.7	20.4	100.0	136
Secondary+	93.7	4.9	1.4	100.0	87.5	9.1	3.3	100.0	215
Total	54.9	19.0	26.1	100.0	42.5	19.2	38.2	100.0	1,114

cent). Acceptability of family planning messages on radio and television generally decreases with age, and increases with education.

Rural respondents were slightly more likely than urban respondents to view family planning messages in the media as unacceptable. Respondents in the Southern and Central Zones are extremely supportive of having messages in the media. On the other hand, a substantial proportion of both women (42 percent for each media) and men (49 percent for radio and 56 percent for television) in the Southern Red Sea Zone and to a lesser extent men in the Anseba Zone consider these media unacceptable for family planning messages.

4.12 Exposure to Family Planning Messages in Print Media

Female respondents were asked if they had been exposed to a family planning message through a newspaper/magazine article, a poster, or leaflet/brochure (i.e., print media) during a few months prior to the interview. The results are presented in Table 4.15. Over four-fifths (83 percent) of the women interviewed reported that they had no exposure to print media that contained family planning information. Newspapers/ magazines and posters were equally important (11 percent each) as sources of family planning messages in print media. Seven percent mentioned leaflets/brochures as a source of family planning messages.

Women in rural areas have almost no exposure to print media on family planning (95 percent), compared with only about 60 percent in urban areas (about half in Asmara and three-quarters in other towns). In all zones except the Central Zone over 90 percent of women are not exposed to family planning messages in the print media. In the Central Zone, 60 percent have no exposure to family planning messages in print media. The proportion not exposed to any print media decreases directly with educational level. Not surprisingly, 97 percent of uneducated women have not been exposed to family planning messages in print media, compared with only 33 percent among women with some secondary education.

Table 4.15 Family planning messages in print

Percentage of women who received a message about family planning through the print media in the few months prior to the interview, according to selected background characteristics, Eritrea 1995

Background characteristic	Type of print media containing family planning message				Number of women
	No source	Newspaper/ magazine	Poster	Leaflet/ brochure	
Residence					
Urban	59.1	28.2	25.9	17.2	1,648
Asmara	51.5	34.5	29.7	20.1	1,059
Other towns	72.6	16.7	19.0	12.1	589
Rural	94.8	2.2	3.1	1.5	3,406
Zone					
Southern Red Sea	90.5	7.7	7.7	5.3	139
Northern Red Sea	91.8	4.1	6.9	4.4	556
Anseba	91.2	4.8	3.4	6.2	642
Gash-Barka	92.8	1.7	6.2	0.9	957
Southern	92.3	5.0	4.0	1.9	1,392
Central	58.9	28.4	25.3	16.6	1,368
Education					
No education	96.9	0.8	2.4	0.6	3,332
Primary incomplete	73.8	16.1	14.5	8.1	786
Primary complete	52.0	32.3	26.0	19.1	435
Secondary+	33.3	49.2	44.7	33.3	501
Total	83.1	10.7	10.5	6.6	5,054

4.13 Discussion of Family Planning with Husband

An indication of the acceptability of family planning is the extent to which spouses discuss the topic with each other. Table 4.16 indicates that among currently married non-sterilized women who know a contraceptive method, more than 70 percent did not discuss family planning with their husband in the year prior to the survey, while 14 percent discussed it only once or twice with their husband and the same proportion discussed it more often. The likelihood that a woman will discuss family planning with her husband is greater among women in their twenties and thirties than among younger or older women.

Table 4.16 Discussion of family planning by couples

Percent distribution of currently married non-sterilized women who know a contraceptive method by the number of times family planning was discussed with the husband in the year preceding the survey, according to current age, Eritrea 1995

Background characteristic	Number of times family planning discussed with husband				Total	Number of women
	Never	Once or twice	More often	Missing		
Age						
15-19	76.9	12.6	10.5	0.0	100.0	230
20-24	65.5	17.3	16.9	0.4	100.0	381
25-29	68.8	16.9	14.3	0.0	100.0	412
30-34	63.8	15.0	21.0	0.2	100.0	317
35-39	69.1	17.2	13.7	0.0	100.0	289
40-44	77.0	10.0	13.0	0.0	100.0	292
45-49	86.5	5.6	7.0	0.9	100.0	224
Total	71.3	14.2	14.3	0.2	100.0	2,145

4.14 Attitudes Toward Family Planning

Use of effective contraceptive methods is facilitated when couples have a positive attitude toward family planning. Attitudinal data were collected by asking women whether they approved of couples using family planning and what they perceived as their husband's attitude toward family planning. This information is useful in the formulation of family planning policies, since it indicates the extent to which further education and publicity are needed to gain or increase acceptance of family planning. Widespread disapproval of contraception can be a major barrier to adoption of methods.

The results presented in Table 4.17 are confined to currently married, non-sterilized women and exclude those who do not know any contraceptive method. Overall, two-thirds of married women who know of a contraceptive method approve of family planning and one-third believe that their husband approves. More than 40 percent of women do not know their husband's attitude.

Overall, 31 percent of women said that both they and their husbands approved of family planning; only 10 percent of women reported that both they and their husbands disapproved. When there is a perceived disagreement between spouses, it is more common for the wife to report that her husband disapproves and she approves (6 percent), than that the husband approves and she disapproves (1 percent).

The likelihood that a woman will report that both she and her husband approve of family planning is higher among women in their twenties and thirties and declines to 16 percent among women age 45-49.

Table 4.17 Wives' perceptions of their husbands' attitudes toward family planning

Percent distribution of currently married non-sterilized women who know of a contraceptive method by wife's attitude toward family planning and wife's perception of her husband's attitude toward family planning, according to selected background characteristics, Eritrea 1995

Background characteristic	Both approve	Woman approves: Husband disapproves	Woman approves: Husband's attitude unknown	Woman disapproves: Husband approves	Woman disapproves: Husband's attitude unknown	Both disapprove	Missing	Total	Wife approves	Husband approves[1]	Total
Age											
15-19	21.7	7.2	45.3	0.8	10.7	4.4	9.9	100.0	74.3	24.8	230
20-24	39.2	5.3	26.9	1.2	8.9	8.7	9.8	100.0	71.4	41.0	381
25-29	37.1	3.6	28.5	2.0	7.9	10.2	10.6	100.0	69.3	40.3	412
30-34	34.7	4.6	26.7	1.9	10.6	10.0	11.4	100.0	66.3	37.2	317
35-39	34.0	8.0	25.7	1.1	10.7	12.9	7.6	100.0	67.7	35.6	289
40-44	24.9	7.9	31.3	1.3	9.7	8.5	16.3	100.0	64.2	26.4	292
45-49	16.3	4.3	28.6	1.0	19.8	13.0	17.0	100.0	49.3	17.3	224
Residence											
Urban	53.6	7.0	14.0	2.5	7.2	10.5	5.2	100.0	74.7	56.8	697
Asmara	61.7	6.8	9.7	3.1	6.8	9.9	1.9	100.0	78.5	65.1	428
Other towns	40.6	7.3	20.7	1.7	7.9	11.5	10.4	100.0	68.6	43.5	268
Rural	20.5	5.1	37.4	0.9	12.3	9.3	14.6	100.0	63.0	22.1	1,448
Zone											
Southern Red Sea	21.8	3.3	6.7	2.2	39.2	15.5	11.3	100.0	31.8	23.9	45
Northern Red Sea	22.4	3.7	17.0	1.4	19.4	12.6	23.5	100.0	43.2	24.0	196
Anseba	14.8	8.9	9.6	0.7	15.2	26.1	24.6	100.0	33.3	19.1	179
Gash-Barka	21.1	6.8	30.3	1.8	8.0	14.8	17.2	100.0	58.2	24.1	260
Southern	24.9	4.5	48.6	0.6	8.6	1.9	10.9	100.0	78.0	26.0	880
Central	54.1	6.9	13.4	2.6	8.3	12.8	1.9	100.0	74.5	56.9	584
Education											
No education	18.5	5.0	35.8	1.1	12.9	10.7	16.0	100.0	59.4	20.5	1,466
Primary incomplete	47.6	7.7	24.5	1.7	7.3	8.6	2.7	100.0	79.8	50.0	401
Primary complete	72.5	8.0	6.1	2.3	4.3	6.2	0.6	100.0	86.6	74.7	128
Secondary+	76.9	5.5	4.7	2.8	3.4	5.7	1.0	100.0	87.1	80.2	150
Total	31.2	5.7	29.8	1.4	10.7	9.7	11.5	100.0	66.8	33.4	2,145

[1] Includes women who are unsure about their own attitude, but know their husband's attitude

The level of approval varies even more between urban and rural areas; couples in urban areas (54 percent), especially Asmara, are more likely to approve of family planning than those in rural areas (21 percent). Approval by both husband and wife was highest in the Central Zone (54 percent) and was 21-25 percent in all other zones except the Anseba Zone where it was 15 percent. Approval by women is lower in the Anseba and Southern Red Sea Zones than in other zones. Less educated women are more likely than more educated women to disapprove of family planning and are more likely to say that their spouse disapproves or that they do not know their spouse's views.

The fact that both women and men in the same household were interviewed provides an opportunity to link responses obtained from currently married women with those obtained independently from their husbands. A total of 564 couples were linked in this way. Table 4.18 shows the percent distribution of these couples by both spouses' approval of family planning, according to age difference between husband and wife and couple's education. The table indicates that 47 percent of couples are in agreement about family

Table 4.18 Attitudes of couples toward family planning

Percent distribution of couples by approval of family planning, according to age difference between spouses and level of education, Eritrea 1995

Age difference/ education	Both approve	Both disap-prove	Wife approves, husband dis-approves	Husband approves, wife dis-approves	Don't know/ Missing	Percent in agree-ment	Total	Number of couples
Husband older by:								
0-4 years	32.1	12.2	10.7	10.6	34.3	44.3	100.0	95
5-9 years	34.9	15.1	9.2	8.6	32.2	50.0	100.0	181
10-14 years	33.7	14.6	12.0	7.6	32.2	48.2	100.0	182
15 or more years	19.7	20.5	6.8	6.4	46.6	40.2	100.0	99
Education								
Neither educated	15.2	19.4	10.8	4.9	49.7	34.7	100.0	347
Husband educated, wife not	44.0	9.2	8.3	19.2	19.3	53.2	100.0	110
Both educated	72.2	7.9	10.2	7.2	2.5	80.2	100.0	91
Total	31.2	15.5	10.1	8.1	35.0	46.7	100.0	564

Note: Total includes 10 couples in which the wife was older than the husband and 15 couples in which the wife was educated and the husband was not.

planning. This figure would be higher except for the fact that respondents in 35 percent of couples did not know their spouse's attitude. Husbands and wives differ on approval of family planning in only 18 percent of cases. Thirty-one percent of couples reported that they both approve of family planning and 16 percent of the couples both disapprove. When only one spouse approved, it was more likely to be the wife than the husband. An exception is couples in which the husband is educated and the wife is not.

Generally, age differences of less than 15 years between husband and wife do not change the likelihood that either approves or disapproves of family planning. However, when the husband is 15 or more years older than wife, there is a greater likelihood that both disapprove of family planning (21 percent) or that they do not know their spouse's attitude toward family planning (47 percent).

Because both men and women interviewed in the EDHS were asked whether they approved of family planning and, if married, whether they thought their spouse approved of family planning, it is possible to examine the extent to which wives and husbands report accurately on their spouse's attitude. Table 4.19 shows the percent distribution of couples by husband's and wife's actual attitude toward family planning, according to their spouse's perception of their attitude. When husbands and wives report that their spouses approve of family planning, they are generally accurate. For example, in 74 percent of the couples in which the wife reported that her husband approved of family planning, the husband also said he approved. Similarly, for 78 percent of couples in which the husband said his wife approved of family planning, she also said she approved. However, when husbands and wives reported that their spouse disapproved of family planning, in one-third of cases the opposite was true, and in less than half of cases, the spouse also said she disapproved of family planning. Any conclusion from these data that there is considerable lack of communication between spouses about attitudes towards family planning should be viewed with caution, since more than a third of respondents reported that they did not know their spouse's attitude toward family planning.

Table 4.19 Spouse's actual and perceived attitudes toward family planning

Percent distribution of couples by husband's and wife's actual attitude toward family planning, according to their spouse's perception of their attitude, Eritrea 1995

Perception of spouse's attitude toward family planning	Spouse's actual attitude toward family planning			Total	Number of couples
	Approves	Disap-approves	Unsure		
Wife's perception of husband's attitude					
Approves	73.9	12.8	13.3	100.0	128
Disapproves	32.2	47.3	20.5	100.0	124
Don't know	32.2	39.1	28.6	100.0	312
Total	41.7	34.9	23.4	100.0	564
Husband's perception of wife's attitude					
Approves	78.3	16.6	5.1	100.0	174
Disapproves	32.9	44.4	22.7	100.0	168
Don't know	38.8	29.4	31.7	100.0	223
Total	49.3	29.9	20.8	100.0	564

CHAPTER 5

OTHER PROXIMATE DETERMINANTS OF FERTILITY

This chapter focuses on the principal factors, other than contraception, that affect a woman's risk of becoming pregnant. These include: nuptiality, sexual activity, postpartum amenorrhea and abstinence from sexual relations. Marriage and the beginning of sexual activity signal the onset of women's exposure to the risk of childbearing; postpartum amenorrhea and abstinence affect the interval between births. These factors determine the length and pace of reproductive activity and are, therefore, important in understanding fertility.

5.1 Marital Status

This report defines marriage to include informal as well as formal unions. Although shown separately in Table 5.1, the categories "married" and "living together" are combined in subsequent tables in this chapter and other chapters and are referred to as "currently married." Respondents who are currently married, widowed, divorced, or no longer living together (separated) are referred to as "ever married." The distribution of women according to their marital status is shown in the upper panel of Table 5.1. The data show that 20 percent of women of reproductive age in Eritrea have never married, 67 percent are currently married, and 13 percent are widowed, divorced, or separated. The proportion never married declines sharply from 62 percent in age group 15-19 to 22 percent in age group 20-24 and then to less than 2 percent among women 45-49 years of age. Universality of marriage in Eritrea is evident from the fact that, among women age 35 and over, 97 percent are, or have been married in the past.

Table 5.1 Current marital status

Percent distribution of women and men by current marital status, according to age, Eritrea 1995

	Current marital status							
Age	Never married	Married	Living together	Widowed	Divorced	Not living together	Total	Number of respondents
				WOMEN				
15-19	62.4	31.3	1.2	0.5	4.0	0.7	100.0	1,129
20-24	21.9	63.0	6.4	0.8	6.1	1.9	100.0	823
25-29	7.9	75.9	5.6	2.0	7.1	1.5	100.0	782
30-34	4.3	74.4	5.9	7.2	6.1	2.1	100.0	638
35-39	1.8	71.5	8.6	6.3	9.1	2.6	100.0	562
40-44	2.7	70.8	7.6	9.1	8.5	1.5	100.0	603
45-49	1.9	64.4	5.4	14.7	10.3	3.2	100.0	518
Total	20.0	61.4	5.3	4.8	6.8	1.7	100.0	5,054
				MEN				
15-19	98.5	0.5	0.9	0.0	0.0	0.0	100.0	237
20-24	68.6	28.9	1.5	0.0	0.0	1.0	100.0	142
25-29	30.5	59.0	1.4	2.0	4.5	2.8	100.0	127
30-34	9.3	82.3	2.1	1.3	2.5	2.5	100.0	102
35-39	1.7	90.9	1.6	1.2	1.2	3.4	100.0	125
40-44	4.4	89.1	0.0	2.8	3.6	0.0	100.0	117
45-49	1.0	94.3	0.0	2.7	2.0	0.0	100.0	113
50-54	2.5	91.8	0.0	5.7	0.0	0.0	100.0	77
55-59	0.0	91.3	1.0	0.6	7.1	0.0	100.0	73
Total	35.0	59.6	1.0	1.5	1.9	1.1	100.0	1,114

The proportion of women who are currently married increases with age until age group 25-29, then declines slowly because of the increasing levels of widowhood and divorce. The proportion divorced is 4 percent in age group 15-19, 6-7 percent among women age 20-34, and then rises further to 9-10 percent in older cohorts.

The lower panel of Table 5.1 shows that 35 percent of the men interviewed have never been married, 61 percent are currently married, and 5 percent are widowed, divorced, or separated. Fifteen percent more men than women have never been married. Few men are widowed or divorced, suggesting that men are more likely than women to remarry after a divorce or the death of a spouse.

5.2 Sexual Relationships Among Unmarried Women

Table 5.2 presents information about the sexual relationships of women who are not currently married or living with a man. This information is important for the study of "visiting" relationships, adolescent pregnancy, and risk factors relating to AIDS and other sexually transmitted diseases. In this report, non-marital sexual relationships include never-married women with occasional partners and ever-married women with occasional or regular partners.

Table 5.2 Sexual relationships of unmarried women

Percent distribution of women who are not currently married or living with a man by type of current sexual relationships, according to selected background characteristics, Eritrea 1995

Background characteristic	Never-married women		Ever-married women			Total	Number of women
	Occasional partner	No partner	Regular partner	Occasional partner	No partner		
Age							
15-19	0.3	92.0	0.0	0.3	7.4	100.0	762
20-24	3.1	68.4	0.0	2.3	26.2	100.0	252
25-29	2.1	40.6	0.0	2.0	55.2	100.0	145
30-35	0.6	21.2	0.0	3.9	74.3	100.0	125
35-39	0.7	8.6	0.6	9.0	81.1	100.0	112
40-44	0.6	11.7	0.6	3.4	83.8	100.0	131
45-49	0.9	5.5	0.0	0.0	93.6	100.0	156
Residence							
Urban	1.1	68.3	0.2	1.7	28.8	100.0	880
Asmara	0.6	75.9	0.1	0.5	22.9	100.0	608
Other towns	2.2	51.2	0.2	4.5	41.8	100.0	273
Rural	0.9	48.8	0.0	1.9	48.4	100.0	802
Zone							
Southern Red Sea	0.9	54.5	0.0	0.9	43.7	100.0	52
Northern Red Sea	2.7	49.6	0.0	0.7	47.0	100.0	108
Anseba	0.0	57.7	0.3	1.3	40.7	100.0	202
Gash-Barka	1.7	39.5	0.0	5.9	52.9	100.0	222
Southern	1.0	45.3	0.0	2.4	51.3	100.0	366
Central	0.8	73.8	0.1	0.7	24.6	100.0	731
Education							
No education	0.9	31.7	0.1	2.4	64.9	100.0	696
Primary incomplete	1.0	62.3	0.0	2.1	34.6	100.0	341
Primary complete	0.7	84.0	0.2	1.4	13.7	100.0	298
Secondary+	1.4	89.0	0.0	0.8	8.9	100.0	347
Total	1.0	59.0	0.1	1.8	38.1	100.0	1,683

Table 5.2 shows that among women who are not currently married, 1 percent are never-married with an occasional sexual partner and about 2 percent are ever-married with an occasional sexual partner. In contrast, 59 percent of women who are not currently married are women who never married and have no sex partner, and 38 percent are ever-married with no sex partner. These figures indicate that the prevalence of non-marital sexual relationships is very low in Eritrea. The overwhelming majority of unmarried women (97 percent) are with no sexual partner.

The prevalence of non-marital sexual relationships is as high as 10 percent in the age group 35-39 and as low as 1 percent in the youngest and oldest age groups. A similar level of non-marital sexual relationships is observed in urban and rural areas (about 3 percent each). The prevalence of these relationships is relatively high in the Gash-Barka Zone and lowest in the Central and Anseba Zones.

5.3 Polygyny

The extent of polygyny in Eritrea was measured by asking all currently married female respondents the questions: "Does your husband/partner have any other wives besides yourself?" and if so, "How many other wives does he have?" Currently married male respondents were asked, "How many wives do you have?" and men who were living with a woman were asked: "How many women are you living with as if you were married?" The proportion of currently married women in a polygynous union according to age group and selected background characteristics is shown in Table 5.3 and in Figure 5.1. Overall, 7 percent of currently married women in Eritrea are in a polygynous union. Polygynous unions are most prevalent in the age groups 30-34 and 35-39 (10 and 11 percent, respectively). In general, older women are more likely to

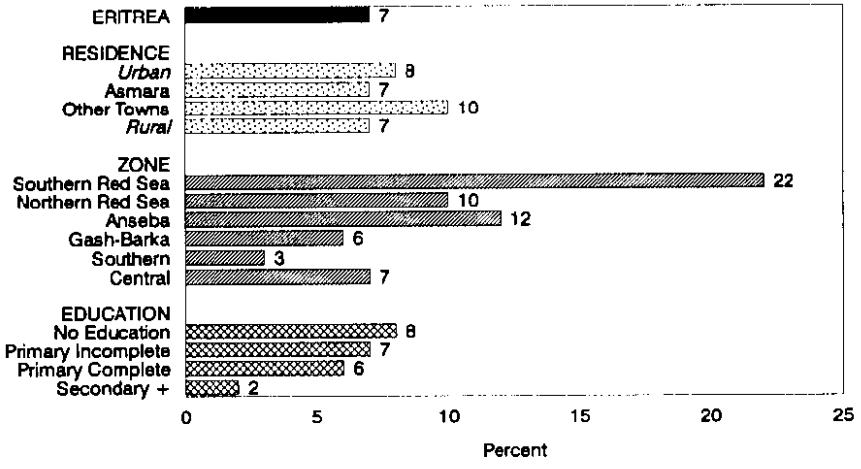
Table 5.3 Polygyny

Percentage of currently married women age 15-49 years and of currently married men age 15-59 years in a polygynous union, by age and selected background characteristics, Eritrea 1995

Background characteristic	Age of respondent							Women	Men
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-49	15-59
Residence									
Urban	4.1	4.1	4.8	9.5	13.2	10.2	9.3	8.2	5.3
Asmara	*	4.3	1.8	9.1	8.5	10.8	8.0	7.1	4.4
Other towns	0.6	3.7	8.7	10.2	21.0	9.2	11.6	9.6	6.6
Rural	2.0	3.4	5.8	10.3	10.4	7.7	9.0	6.7	5.2
Zone									
Southern Red Sea	*	(10.0)	(14.0)	(27.7)	*	(34.7)	*	21.6	(19.8)
Northern Red Sea	3.1	4.5	14.1	7.9	15.8	16.3	8.1	10.0	2.2
Anseba	*	5.9	11.9	19.8	19.3	6.6	(8.3)	11.9	0.0
Gash-Barka	0.0	3.9	4.2	10.6	6.4	6.6	(20.0)	6.4	11.5
Southern	0.0	0.2	2.1	4.3	9.9	2.9	4.7	3.0	2.0
Central	9.0	4.7	2.2	8.4	8.0	10.3	8.5	6.9	4.9
Education									
No education	2.2	2.7	6.2	10.9	11.4	8.3	9.4	7.5	5.5
Primary incomplete	2.2	8.5	4.4	9.7	9.7	8.5	(7.5)	6.7	4.4
Primary complete	*	(1.8)	*	*	*	*	*	5.8	7.0
Secondary+	*	1.0	1.9	(2.8)	(3.6)	*	*	1.7	4.0
Women 15-49	2.2	3.5	5.6	10.1	11.2	8.3	9.1	7.1	NA
Men 15-59	*	(3.0)	0.8	4.0	5.6	4.5	7.7	NA	5.3

Note: For men in the age group 50-59, 7.8 percent are in a polygynous union. Figures in parentheses are based on 25 to 49 respondents; an asterisk indicates that a figure is based on fewer than 25 respondents and has been suppressed.
NA = Not applicable

Figure 5.1
Percentage of Married Women in a Polygynous Union
By Background Characteristics



EDHS 1995

be in polygynous unions than younger women, reflecting either a genuine trend away from polygyny among younger couples or a life cycle effect. Polygyny varies little by urban-rural residence; however, there are zonal variations, with the Southern Zone having the lowest level of polygyny (3 percent) and the Southern Red Sea Zone the highest (22 percent). There is a small inverse relationship between female education and polygyny. The proportion of currently married women in a polygynous union decreases slowly from 8 percent among women with no formal education to 2 percent among those with at least some secondary education.

The data for currently married men is also shown in Table 5.3. Only 5 percent of the men interviewed are in a polygamous union and this varies greatly with age. Less than 2 percent of men under age 30 are in polygamous union, compared with about 8 percent of those age 45 and over. Urban and rural men are equally likely to have multiple wives. There is substantial variation in the distribution of men who are in a polygynous union by zone, ranging from 2 percent in the Southern and Northern Red Sea Zones to 20 percent in the Southern Red Sea Zone. Men who have completed primary education and have not studied further are most likely to be in a polygamous union.

5.4 Age at First Marriage

For most societies, marriage marks the point in a woman's life when childbearing first becomes socially acceptable. Women who marry early will, on average, have longer exposure to reproductive risk; therefore, early age at first marriage often implies early onset of childbearing and higher fertility for the society in general. Information on age at first marriage was obtained by asking all ever-married respondents the month and year they started living together with their first spouse.

The median age at first marriage for women in Eritrea has risen steadily from 16 years among women age 40-49 to 18 years among women age 20-24 (representing recent marital patterns) (see Table 5.4). The proportion of women married by age 15 declined from 31 percent among those age 45-49 to 20 percent among women age 15-19 years. Overall, 73 percent of Eritrean women currently age 25-49 were married by age 20.

Men enter into first union at a much later age than women: the median age at first marriage among men 25-59 is 25 years, compared with 17 years for women. Only 14 percent of men are married by age 20, compared with 73 percent of women age 25-49. By age 25, the median age at first marriage for men, 89 percent of women are married.

Table 5.4 Age at first marriage

Percentage of women age 15-49 and men age 25-59 who were first married by selected exact ages, and median age at first marriage, by current age, Eritrea 1995

WOMEN

Current age	Percentage who were first married by exact age: 15	18	20	22	25	Percentage who have never married	Number of women	Median age at first marriage
15-19	20.0	NA	NA	NA	NA	62.4	1,129	a
20-24	18.2	54.2	69.5	NA	NA	21.9	823	17.6
25-29	20.8	55.8	68.6	80.1	89.4	7.9	782	17.4
30-34	23.9	56.7	70.7	80.9	86.8	4.3	638	17.1
35-39	24.8	61.3	73.6	84.8	91.0	1.8	562	16.6
40-44	24.7	62.2	75.1	82.6	88.3	2.7	603	16.3
45-49	31.0	68.2	79.4	86.5	92.4	1.9	518	15.9
Women 20-49	23.3	59.0	72.3	81.2	87.1	7.8	3,925	16.9
Women 25-49	24.6	60.3	73.0	82.7	89.4	4.0	3,102	16.7

MEN

Current age	Percentage who were first married by exact age: 20	22	25	28	30	Percentage who have never married	Number of men	Median age at first marriage
25-29	15.4	28.7	52.9	NA	NA	30.5	127	24.7
30-34	12.4	39.1	59.6	72.0	81.5	9.3	102	23.6
35-39	15.6	30.0	45.6	68.8	81.1	1.7	125	25.3
40-44	6.8	18.8	37.9	66.3	75.4	4.4	117	26.0
45-49	16.1	33.7	55.5	74.2	80.7	1.0	113	24.3
50-54	12.7	33.7	49.8	58.5	75.7	2.5	77	25.0
55-59	18.1	29.5	50.5	76.1	77.3	0.0	73	24.8
Men 25-59	13.7	30.2	50.1	69.3	77.3	8.0	735	25.0

NA = Not applicable
[a] Omitted because less than 50 percent of women in age group 15-19 were first married by age 15

Table 5.5 examines the median age at first marriage for women age 20-49 and age 25-49, and men 30-59 by selected background characteristics. The overall median age at first marriage observed for women age 25-49 is 17 years; however, the table shows large differentials by background characteristics. Urban women marry about two years later than rural women. There are also variations by zone. The Gash-Barka and Southern Zones have the lowest median age at first marriage (16 years) while the Southern Red Sea, Central and Northern Red Sea Zones have the highest (18 years). The median age at marriage in the other zones is 17 years.

There is a marked correlation between female education and median age at first marriage. The median age for women age 25-49 with no formal education is 16 years, compared with 18 years for those with primary education. Women with secondary or higher education marry about eight years later than uneducated women.

The median age at first marriage for men 30-59 is shown in the last column of Table 5.5. The medians are not calculated for men 25-59 because for some characteristics less than 50 percent of men were married by age 25. Urban men, especially men in other towns, marry later than rural men. Men in other towns marry one year later than men in Asmara, and more than three years later than their rural counterparts. Zonal differences are more pronounced; men in the Southern and Gash-Barka Zones marry at a median age of less than 24 years whereas median age at marriage for men in the Northern Red Sea Zone is almost 28 years; a difference of four years. The median age at first marriage in other zones is 26 years. Men who have completed primary school and those who have some secondary education marry one and four years later, respectively, than men with no education.

Table 5.5 Median age at first marriage

Median age at first marriage among women age 20-49 years, by current age and selected background characteristics, and among men age 30-59 years by selected background characteristics, Eritrea 1995

	Current age								
Residence	20-24	25-29	30-34	35-39	40-44	45-49	Women 20-49	Women 25-49	Men 30-59
Residence									
Urban	a	19.9	18.2	17.8	17.3	16.7	18.7	18.0	26.8
Asmara	a	21.7	19.4	17.9	17.4	16.6	19.8	18.6	26.5
Other towns	18.3	17.6	17.0	17.4	17.0	16.7	17.5	17.2	27.5
Rural	16.4	16.9	16.5	16.3	16.0	15.7	16.3	16.3	24.2
Zone									
Southern Red Sea	18.9	18.0	17.0	19.8	18.8	19.0	18.3	18.2	25.5
Northern Red Sea	16.8	17.4	18.1	17.3	18.3	16.7	17.4	17.6	27.7
Anseba	17.5	17.5	16.5	16.6	16.2	15.9	16.7	16.5	25.8
Gash-Barka	16.0	16.6	15.9	15.7	15.4	15.5	15.9	15.8	23.5
Southern	16.2	16.9	16.6	16.7	16.0	15.8	16.4	16.4	23.7
Central	a	19.9	18.6	17.5	16.6	16.3	18.7	17.7	25.5
Education									
No education	16.0	16.8	16.4	16.3	16.0	15.9	16.2	16.2	24.7
Primary incomplete	17.9	17.9	18.4	18.4	17.2	16.3	17.8	17.7	24.2
Primary complete	19.2	18.9	18.8	16.0	17.6	16.5	18.4	17.9	25.7
Secondary+	a	24.5	24.9	20.7	22.7	21.5	a	23.9	28.7
Women 20-49	17.6	17.4	17.1	16.6	16.3	15.9	16.9	16.7	NA
Men 30-59	NA	NA	23.6	25.3	26.0	24.3	NA	NA	25.1

Note: The median age at marriage for men 50-59 is 24.9 years.
[a] Omitted because less than 50 percent of women in the age groups 20-24 and 20-49 were first married by age 20
NA = Not applicable

5.5 Age at First Sexual Intercourse

Age at first marriage is often used as a proxy for the onset of women's exposure to the risk of pregnancy. However, since some women are sexually active before marriage the age at which women initiate sexual intercourse more precisely marks the beginning of their exposure to reproductive risk.

The percentage of women who had first sexual intercourse by selected exact ages is given in Table 5.6. The median age at first sexual intercourse for women has risen slowly in recent years from 16 years for the 45-49 cohort to 18 years for the 25-29 cohort. This corresponds roughly to the rise in age at first marriage discussed in the last section. The median age at first sexual intercourse and median age at first marriage are the same (17 years). Among teenagers, 62 percent have never had sexual intercourse. The proportion drops to 21 percent for women age 20-24 and by age 25-29 most women (93 percent) have had sex.

Table 5.6 Age at first sexual intercourse

Percentage of women who had first sexual intercourse by selected exact ages, and median age at first intercourse, by current age, Eritrea 1995

	Percentage who had first intercourse by exact age:					Percentage who never had intercourse	Number of women	Median age at first intercourse
Current age	15	18	20	22	25			
15-19	18.5	NA	NA	NA	NA	62.4	1,129	a
20-24	16.3	50.7	68.4	NA	NA	20.8	823	17.9
25-29	17.5	52.4	65.5	76.2	85.0	7.3	782	17.7
30-34	22.3	55.5	69.0	79.5	85.1	4.3	638	17.1
35-39	21.8	59.8	72.2	81.9	86.9	1.5	562	16.8
40-44	23.6	61.1	74.9	82.5	86.8	2.3	603	16.4
45-49	28.4	67.3	77.8	85.0	91.4	1.1	518	16.0
Women 20-49	21.0	56.9	70.7	79.3	84.7	7.2	3,925	17.0
Women 25-49	22.3	58.6	71.3	80.6	86.8	3.6	3,102	16.8

NA = Not applicable
[a] Omitted because less than 50 percent in the age group 15-19 have had intercourse by age 15

Table 5.7 shows differentials in the median age at first sexual intercourse by background characteristics for women age 20-49 years. With respect to the place of residence, rural women generally start sexual relations three years earlier than women in Asmara and ten months earlier than women in other towns. There is less variation by zone; the Central Zone has the highest median age at first sexual intercourse (19 years) while the Gash-Barka and Southern Zones have the lowest (16 years). Women age 25-49 with secondary and higher education tend to initiate sexual relations much later than other women, more than seven years later, on average, than those with no education.

Table 5.7 Median age at first intercourse

Median age at first sexual intercourse among women age 20-49 years, by current age and selected background characteristics, Eritrea 1995

Background characteristic	Current age						Women 20-49	Women 25-49
	20-24	25-29	30-34	35-39	40-44	45-49		
Residence								
Urban	a	19.5	18.2	17.5	17.2	16.6	18.6	17.9
Asmara	a	21.8	19.3	18.0	17.4	16.5	19.7	18.5
Other towns	18.4	17.7	16.8	16.8	16.6	16.7	17.4	17.0
Rural	16.8	17.1	16.7	16.5	16.2	15.8	16.6	16.5
Zone								
Southern Red Sea	19.0	17.8	16.9	21.1	18.7	19.0	18.1	17.9
Northern Red Sea	17.2	17.5	18.1	17.1	18.4	16.7	17.5	17.6
Anseba	17.6	17.4	16.4	16.9	16.3	16.0	16.8	16.6
Gash-Barka	16.6	17.5	16.6	16.0	16.0	15.9	16.4	16.4
Southern	16.5	17.0	16.0	16.7	16.0	15.8	16.4	16.4
Central	a	20.0	18.5	17.5	16.4	16.2	18.7	17.7
Education								
No education	16.4	17.1	16.6	16.4	16.2	15.9	16.4	16.4
Primary incomplete	18.0	18.0	17.9	18.1	16.8	16.6	17.7	17.5
Primary complete	19.0	18.6	18.8	17.6	17.5	16.3	18.5	18.2
Secondary+	a	24.7	24.6	21.9	20.9	21.5	a	23.9
Women 20-49	17.9	17.7	17.1	16.8	16.4	16.0	17.0	16.8

[a] Omitted because less than 50 percent of women had had intercourse by age 20.

5.6 Recent Sexual Activity

In the absence of effective contraception, the probability of becoming pregnant is closely related to the frequency of intercourse. Thus, information on sexual activity can be used to refine measures of exposure to pregnancy. Although EDHS data indicate that only 7 percent of the women age 20-49 have never had sexual intercourse (see Table 5.6), not all those who ever had sex are currently sexually active. Men and women were asked how long ago their last sexual activity occurred.

Tables 5.8.1 and 5.8.2 provide information on the sexual activity of women and men in the four weeks preceding the survey. Forty-seven percent of women age 15-49 were sexually active in the four weeks preceding the survey, 7 percent were abstaining postpartum, 25 percent were abstaining for reasons other than recent childbirth, and 20 percent had never had sex. Recent sexual activity is higher among women between the ages of 30 and 44 years (60-64 percent), women married for 10 to 24 years (62-66 percent), women living in rural areas, those with little or no education, and women using some type of contraception. There also exist zonal variations in levels of recent sexual activity, ranging from 24 percent among women in the Southern Red Sea Zone to 56 percent in the Gash-Barka Zone.

The proportion of women who have been postpartum abstaining for under two years declines at older ages and at longer marital durations. Women in other towns and rural areas, those with little or no education, and those who are not using any form of contraception are more likely to be postpartum abstaining. Abstinence unrelated to childbirth is observed to be higher among women between the ages of 35 and 49 years and women married 0-4 years and over 25 years. There are substantial differences in levels of abstinence unrelated to childbirth among the zones, ranging from 21-22 percent among women in the Anseba and Central Zones to 36 percent in the Southern Red Sea Zone.

Table 5.8.1 Recent sexual activity: women

Percent distribution of women by sexual activity in the four weeks preceding the survey, and among those not sexually active, the length of time they have been abstaining and whether postpartum or not postpartum, according to selected background characteristics and contraceptive method currently used, Eritrea 1995

Background characteristic/ Contraceptive method	Sexually active in last four weeks	Not sexually active in last four weeks: Abstaining (postpartum) 0-1 years	Abstaining (postpartum) 2+ years	Abstaining (not postpartum) 0-1 years	Abstaining (not postpartum) 2+ years	Never had sex	Missing	Total	Number of women
Age									
15-19	16.7	5.0	0.5	12.8	2.0	62.4	0.6	100.0	1,129
20-24	45.2	9.8	1.6	18.0	3.3	20.8	1.4	100.0	823
25-29	56.2	10.0	0.4	18.6	6.0	7.3	1.4	100.0	782
30-34	59.8	8.7	1.6	12.9	11.6	4.3	1.3	100.0	638
35-39	63.9	4.4	0.5	15.5	12.0	1.5	2.1	100.0	562
40-44	59.8	2.8	0.3	15.5	17.4	2.3	1.8	100.0	603
45-49	56.3	0.7	0.3	10.7	29.1	1.1	1.8	100.0	518
Duration of union (years)									
Never married	0.5	0.9	0.0	0.6	0.6	97.2	0.3	100.0	1,009
0-4	48.6	13.0	1.4	32.6	2.3	0.8	1.3	100.0	836
5-9	58.0	11.2	1.7	19.4	8.2	0.0	1.5	100.0	708
10-14	64.2	6.9	1.0	13.5	12.0	0.0	2.5	100.0	637
15-19	62.0	6.8	0.6	15.6	13.7	0.0	1.2	100.0	567
20-24	65.7	5.1	0.4	15.0	11.9	0.0	1.8	100.0	498
25-29	60.9	2.1	0.6	11.3	23.7	0.0	1.5	100.0	450
30+	59.5	0.8	0.0	11.4	26.3	0.0	2.0	100.0	347
Residence									
Urban	31.7	4.1	1.0	12.2	13.4	36.2	1.4	100.0	1,648
Asmara	28.7	3.0	0.9	10.1	12.5	43.4	1.4	100.0	1,059
Other towns	37.1	6.1	1.2	15.9	14.9	23.3	1.5	100.0	589
Rural	54.9	7.3	0.7	16.3	8.0	11.5	1.3	100.0	3,406
Zone									
Southern Red Sea	23.9	11.6	4.9	21.8	14.0	19.8	4.1	100.0	139
Northern Red Sea	53.0	7.1	0.9	18.4	8.7	10.0	1.8	100.0	556
Anseba	52.8	6.5	0.6	12.4	8.4	17.7	1.6	100.0	642
Gash-Barka	56.2	7.5	0.5	18.1	7.9	9.4	0.4	100.0	957
Southern	53.0	6.9	0.5	16.4	10.1	11.7	1.6	100.0	1,392
Central	32.8	3.9	0.9	10.4	11.4	39.3	1.2	100.0	1,368
Education									
No education	58.3	6.8	0.7	15.5	10.6	6.5	1.6	100.0	3,332
Primary incomplete	34.0	6.8	1.3	19.1	11.0	26.9	1.0	100.0	786
Primary complete	18.9	5.5	0.8	9.9	6.6	57.5	0.8	100.0	435
Secondary+	20.1	2.7	0.4	9.0	5.0	61.7	1.0	100.0	501
Contraceptive method									
No method	45.3	6.5	0.8	14.9	10.3	20.8	1.4	100.0	4,757
Pill	73.9	2.9	0.0	21.9	0.0	0.0	1.3	100.0	75
IUD	(73.0)	(0.0)	(0.0)	(20.3)	(3.4)	(0.0)	3.4	100.0	22
Periodic abstinence	(66.7)	(4.4)	(0.0)	(26.6)	(2.3)	(0.0)	(0.0)	100.0	31
Other (including breastfeeding)	87.0	3.3	0.0	9.8	0.0	0.0	0.0	100.0	157
Total	47.3	6.3	0.8	14.9	9.8	19.5	1.4	100.0	5,054

Note: Total includes 17 women using sterilization who are not shown separately. Figures in parentheses are based on 25 to 49 women.

Table 5.8.2 Recent sexual activity: men

Percent distribution of men by sexual activity in the four weeks preceding the survey, according to selected background characteristics, Eritrea 1995

Background characteristic	Sexually active in last four weeks	Not sexually active in last four weeks	Never had sex	Total	Number of men
Age					
15-19	1.8	2.1	96.1	100.0	237
20-24	25.5	30.2	44.3	100.0	142
25-29	47.7	33.5	18.9	100.0	127
30-34	71.8	21.8	6.4	100.0	102
35-39	67.4	32.1	0.6	100.0	125
40-44	69.7	28.3	2.0	100.0	117
45-49	78.4	21.6	0.0	100.0	113
50-54	71.9	28.1	0.0	100.0	77
55-59	61.4	38.6	0.0	100.0	73
Marital status					
Never married	3.4	13.4	83.2	100.0	390
Polygynous union	(69.5)	(30.5)	(0.0)	100.0	36
Monogamous union	75.9	24.1	0.0	100.0	639
Formerly in union	(12.4)	(87.6)	(0.0)	100.0	50
Residence					
Urban	36.1	27.4	36.5	100.0	356
Asmara	34.5	24.7	40.8	100.0	229
Other towns	38.9	32.3	28.8	100.0	127
Rural	52.9	21.5	25.6	100.0	758
Education					
No education	63.9	24.0	12.1	100.0	520
Primary incomplete	41.3	22.4	36.3	100.0	243
Primary complete	33.1	19.1	47.8	100.0	136
Secondary+	24.1	25.6	50.3	100.0	215
Total	47.5	23.4	29.1	100.0	1,114

Note: Figures in parentheses are based on 25 to 49 men.

More educated women tend to start sex later than uneducated women. Seven percent of uneducated women have not yet had sex, compared with 27 percent of women with primary incomplete, 58 percent of women with primary complete, and 62 percent of women with secondary or higher education. As a measure of sexual activity, among those who ever had sex, 62 percent of uneducated women and around half of those with some education had sex in the four weeks preceding the survey.

Three in 10 men have never had sex (Table 5.8.2). Although a higher proportion of women than men have ever had sex, men interviewed in the EDHS are as likely as women to have been sexually active in the four weeks preceding the survey. Only 83 percent of men who have never been married have never had sex, compared with 97 percent of women.

5.7 Postpartum Amenorrhea, Abstinence and Insusceptibility

Postpartum amenorrhea refers to the interval between childbirth and the return of menstruation. During this period, the risk of pregnancy is much reduced. How long this protection from conception following childbirth lasts, depends on the length and intensity of breastfeeding. Women who gave birth during the three years prior to the survey were asked about their breastfeeding practices and the duration of amenorrhea and sexual abstinence. Women are considered insusceptible (to the risk of pregnancy) if they are not exposed because they are either amenorrheic or abstaining from sex. The results are presented in Table 5.9.

Table 5.9 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining and insusceptible, by number of months since birth, and median and mean durations, Eritrea 1995

Months since birth	Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	97.4	90.8	97.9	141
2-3	88.8	45.7	94.5	179
4-5	89.4	23.3	90.6	142
6-7	79.9	12.7	81.5	152
8-9	78.5	9.6	81.9	147
10-11	69.9	7.1	72.7	149
12-13	49.8	8.1	53.8	137
14-15	53.6	7.1	59.5	138
16-17	43.0	6.6	47.8	138
18-19	40.4	5.2	43.3	141
20-21	39.7	8.9	44.7	109
22-23	18.8	6.5	24.8	98
24-25	0.9	2.2	3.1	154
26-27	9.6	5.5	13.7	141
28-29	7.4	7.4	12.8	152
30-31	5.8	3.1	8.2	175
32-33	6.1	2.6	8.7	148
34-35	6.1	4.4	10.2	116
Total	44.5	14.8	48.0	2,556
Median	14.2	2.7	16.6	-
Mean	16.0	5.4	17.3	-
Prevalence/ Incidence mean[1]	15.8	5.2	17.0	-

[1]The prevalence-incidence mean is borrowed from epidemiology and is defined as the number of children whose mothers are amenorrheic (prevalence) divided by the average number of births per month (incidence).

The period of postpartum amenorrhea is considerably longer than the period of postpartum abstinence and is, therefore, the principal determinant of the length of postpartum insusceptibility. In Eritrea, the median duration of amenorrhea is 14 months, the duration of abstinence is 3 months, and the period of insusceptibility is 17 months. Virtually all women are insusceptible to pregnancy during the two months immediately following a birth, when both amenorrhea and abstinence are important factors in their insusceptibility. However, starting from the second month after a birth, the contribution of abstinence to the period of insusceptibility is greatly reduced as more women resume sexual relations. At 20-21 months after a birth, 40 percent of the women are still amenorrheic, while only 9 percent are still abstaining. At 22-23 months postpartum, the proportion amenorrheic drops sharply to 19 percent with 7 percent of women still abstaining and only one-quarter of women still insusceptible.

Table 5.10 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility by various background characteristics. Women age 30 or older have a longer median duration of postpartum insusceptibility (19 months) than women under 30 (14 months); a similar pattern is observed for postpartum amenorrhea by age. Rural women have longer periods of amenorrhea and insusceptibility than urban women. Women in the Anseba and Central Zones have the shortest durations of postpartum amenorrhea (12 months) while those in the Gash-Barka have the longest duration (17 months). Differences in median duration of postpartum abstinence are considerably smaller than those for amenorrhea. Postpartum abstinence is shortest in the Central Zone (2 months) and longest in the Southern Red Sea Zone (5 months). Therefore, women in the Anseba Zone have the shortest period of insusceptibility (12 months) while those in the Gash-Barka Zone have the longest (19 months).

Postpartum amenorrhea and abstinence are inversely related to mother's education. Postpartum amenorrhea decreases from 16 months for women with no education to 13 months for those with primary

Table 5.10 Median duration of postpartum insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by selected background characteristics, Eritrea 1995

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insuscep-tibility	Number of births
Age				
<30	12.6	3.0	13.9	1,381
30+	18.7	2.4	19.4	1,175
Residence				
Urban	10.2	2.3	11.7	536
Asmara	9.4	2.5	10.4	285
Other towns	11.4	2.3	12.3	252
Rural	16.7	2.8	18.1	2,019
Zone				
Southern Red Sea	14.6	4.7	16.5	67
Northern Red Sea	13.3	3.0	13.6	339
Anseba	12.0	2.6	12.1	329
Gash-Barka	17.1	3.2	18.7	488
Southern	16.3	2.5	17.4	878
Central	11.8	2.3	13.4	454
Education				
No education	16.4	2.7	18.0	1,972
Primary incomplete	13.3	3.2	13.9	352
Primary complete	9.7	2.4	11.9	117
Secondary+	6.4	2.3	7.9	114
Total	14.2	2.7	16.6	2,556

Note: Medians are based on current status.

incomplete, 10 months for those with primary complete and 6 months for those with secondary or more education. A similar relationship is observed between education and insusceptibility. Differentials in duration of postpartum abstinence by education are small.

5.8 Termination of Exposure to Pregnancy

After age 30, the risk of pregnancy declines with age as increasing proportions of women become infecund. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a population. Table 5.11 presents data on two indicators of decreasing exposure to the risk of pregnancy for women age 30 years and over: menopause and long-term abstinence.

In addition to considering currently married women who report being menopausal, the table classifies as menopausal currently married women who are neither pregnant nor postpartum amenorrheic and have not had a menstrual period in the six months preceding the survey. The proportion of menopausal women, as expected, increases steadily with age, particularly after age 40. Only 3 percent of women in their early thirties, 7 percent of women in their late thirties, and one-fifth of women 40-41 and 42-43 are menopausal.

The proportion menopausal more than doubles in age group 44-45, and rises to 57 percent among women age 48-49.

Long-term abstinence in Table 5.11 refers to currently married women who did not have sexual intercourse in the three years preceding the survey. Compared with menopause, long-term abstinence has little effect on fertility because so few women practice it. The proportion of currently married women who have not had sexual intercourse in the last three years is less than 2 percent for all age groups, except ages 44-45 and 48-49, where 7 percent and 4 percent, respectively, have abstained from sex for three years or longer.

Table 5.11 Termination of exposure to the risk of pregnancy

Indicators of menopause and long-term abstinence among currently married women age 30-49, by age, Eritrea 1995

	Menopause[1]		Long-term abstinence[2]	
Age	Percent	Number	Percent	Number
30-34	3.4	233	1.8	513
35-39	7.3	236	0.8	450
40-41	19.0	168	1.7	266
42-43	20.4	120	1.0	168
44-45	44.6	159	6.5	187
46-47	54.0	72	1.1	83
48-49	57.0	125	3.5	130
Total	23.6	1,113	2.1	1,797

[1] Percentage of non-pregnant, non-amenorrheic currently married women whose last menstrual period occurred six or more months preceding the survey or who report that they are menopausal.
[2] Percentage of currently married women who did not have intercourse in the three years preceding the survey.

CHAPTER 6

FERTILITY PREFERENCES

The subject of reproductive preferences is of fundamental importance for population policy and for family planning programs. Whether couples want to cease childbearing or delay the next pregnancy determines the demand for family planning and the potential impact on the rate of reproduction. Women and men interviewed in the EDHS were asked a series of questions to ascertain their fertility preferences, for example, their desire to have a (another) child and the length of time they wanted to wait before having a (another) child. The data on fertility preferences of couples and current contraceptive use allow estimation of demand for spacing (have another child later) and limiting births (have no more children) and unmet need for family planning. Another indicator of fertility preferences, perhaps the most common measure of reproductive preference, is the number of children desired. A comparison of respondents' stated ideal family size and their past reproductive behavior can give a measure of excess fertility and the wanted total fertility rate.

6.1 Reproductive Preferences

Table 6.1 presents data regarding fertility preferences among women and men by number of living children. While 21 percent of currently married women would like to have another child within two years

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women and men by desire for more children, according to number of living children, Eritrea 1995

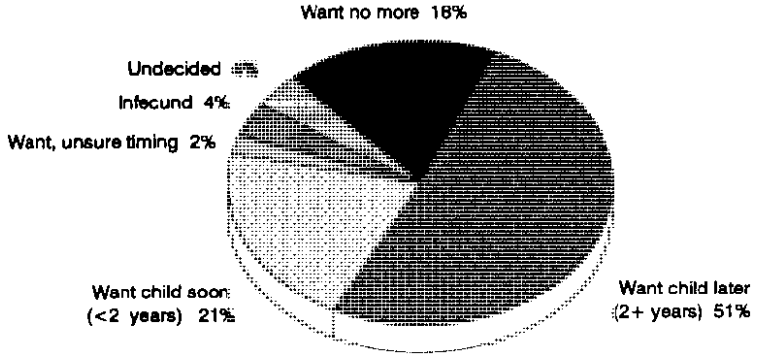
Desire for children	Number of living children[1]								Total
	0	1	2	3	4	5	6	7+	
WOMEN									
Have another soon[2]	59.4	21.5	18.1	15.3	18.0	16.3	11.2	8.8	20.6
Have another later[3]	29.2	68.6	66.5	68.1	53.7	44.7	33.1	19.0	51.0
Have another, undecided when	1.1	1.9	2.7	1.5	0.9	1.2	1.4	0.7	1.5
Undecided	4.3	2.0	3.3	2.8	2.7	3.9	9.5	7.6	4.1
Want no more	1.4	3.6	7.3	9.3	17.9	26.3	38.1	54.8	17.9
Sterilized	0.3	0.1	0.0	0.0	0.0	0.2	0.7	1.3	0.3
Declared infecund	2.2	1.9	2.1	3.0	6.1	7.3	6.0	6.9	4.1
Missing	2.1	0.3	--	0.0	0.5	0.0	0.0	0.8	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	345	573	534	476	445	304	278	416	3,371
MEN									
Have another soon[2]	40.4	30.2	23.4	19.8	12.2	24.3	(19.3)	17.7	23.4
Have another later[3]	54.2	66.5	66.5	63.7	65.3	44.3	(41.0)	22.8	52.3
Have another, undecided when	0.0	1.7	1.0	0.0	1.8	0.0	(1.0)	1.2	0.8
Undecided	5.5	0.8	3.6	4.5	12.2	7.8	(4.4)	0.6	4.6
Want no more	0.0	0.9	1.9	7.4	4.8	19.0	(30.5)	41.1	13.6
Sterilized	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	3.6	0.6
Declared infecund	0.0	0.0	3.5	4.6	3.7	4.6	(3.9)	13.1	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	90	77	76	121	74	71	45	121	675

Note: Figures in parentheses are based on 25 to 49 men.
-- Less than 0.05 percent
[1] For women, includes current pregnancy
[2] Want next birth within two years
[3] Want to delay next birth for two or more years

(soon), 51 percent want to have another later, i.e., wait for two or more years. Eighteen percent of married women want no more children. Thus, the large majority of women, 7 in 10 women, want either to space their next birth or to end childbearing altogether (see Figure 6.1). Taken at face value, this represents the proportion of women who are potentially in need of some method of family planning.

Among currently married men age 15-59 years, the fertility preferences are in general very similar to those of women age 15-49 years. A notable difference is the higher proportion of women than men who want no more children (18 percent versus 14 percent).

Figure 6.1
Fertility Preferences of Currently Married Women 15-49



Note: "Want no more" includes sterilized women.

EDHS 1995

The desire to discontinue childbearing increases steadily with increasing number of children, from 1 percent among married women with no children to 55 percent among women with seven or more children (see Figure 6.2). A similar pattern of changing fertility desires associated with increasing number of children is observed among male respondents, but only 4 in 10 men with seven or more children want no more children.

Table 6.2 shows women's fertility preferences by age. The desire to space births declines with increasing age, from 70 percent for women under 30 to only 8 percent among women age 45-49. Conversely, the desire to limit births is low among women under age 30 (4-6 percent) and then rises with age, from 15 percent among married women age 30-34 to 47 percent among those age 45-49. In other words, the potential need for family planning services is very high among younger women for spacing births and high among women over 40 for limiting childbearing. The net effect of these two opposing patterns is that the proportion of women age 15-44 falling into one of these two groups stays relatively constant across age groups at between 65 percent and 75 percent.

Figure 6.2
Fertility Preferences of Married Women
by Number of Living Children

Note: "Want no more" includes sterilized women

EDHS 1995

Table 6.2 Fertility preferences by age

Percent distribution of currently married women by desire for more children, according to age, Eritrea 1995

	Age of woman							
Desire for children	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Have another soon[1]	21.2	20.6	20.2	23.8	21.5	20.2	15.9	20.6
Have another later[2]	69.5	69.3	69.7	53.6	40.7	29.1	8.1	51.0
Have another, undecided when	1.1	2.2	1.7	2.4	1.7	0.6	0.3	1.5
Undecided	3.0	3.3	2.7	4.3	8.2	5.7	1.9	4.1
Want no more	3.7	3.8	5.6	14.8	24.8	36.5	47.4	17.9
Sterilized	0.0	0.0	0.0	0.1	0.7	0.9	0.6	0.3
Declared infecund	0.2	0.1	0.2	0.3	1.8	6.9	25.9	4.1
Missing	1.3	0.7	0.0	0.6	0.7	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	366	571	637	513	450	472	362	3,371

[1] Want next birth within two years
[2] Want to delay next birth for two or more years

Table 6.3 presents data on the fertility desires of 520 monogamous couples who live together in the same household, by the number of living children. Most couples (73 percent) agree on their desire either to have more children (64 percent) or to stop having children (9 percent). Among couples with six or fewer children, there is little desire to stop having children and among those with seven or more children only 4 in 10 couples state that they want no more children.

Table 6.3 Desire for more children among monogamous couples

Percent distribution of monogamously married couples by desire for more children, according to number of living children, Eritrea 1995

Number of living children	Both want more	Husband more/ wife no more	Wife more/ husband no more	Both want no more	Husband/ wife infecund	One or both undecided/ missing	Total	Number of couples
Same number								
0	(86.9)	(0.0)	(0.0)	(0.0)	(0.0)	(13.1)	100.0	51
1-3	81.8	2.7	2.0	0.8	3.7	9.0	100.0	190
4-6	53.6	14.3	4.1	9.3	2.3	16.4	100.0	117
7+	(15.1)	(15.0)	(5.7)	(39.2)	(22.4)	(2.5)	100.0	53
Different number								
Husband > wife	58.0	11.4	8.4	8.3	10.3	3.6	100.0	84
Total	64.0	7.9	4.0	8.7	6.4	9.1	100.0	520

Note: Total includes 24 couples for whom the number of living children reported by the wife was more than reported by the husband. They are not shown separately. Figures in parentheses are based on 25 to 49 couples.

Table 6.4 presents the percentage of currently married women and men who want no more children, by number of living children and selected background characteristics. Women living in Asmara (33 percent) reported wanting no more children more often than women living in other towns (20 percent) or rural areas (15 percent). This relative difference remains fairly constant by number of children. The urban-rural difference in desire to limit childbearing is more pronounced among men than women. Urban men are slightly more likely and rural men are much less likely to want to limit their families than women (see Figure 6.3).

About 3 in 10 men and women in Central Zone want to have no more children while in other zones the corresponding proportion among women ranges from 11 percent to 19 percent. The differences among men are more pronounced; 13-14 percent of men in the Southern Red Sea and Southern Zones and 7-8 percent of men in other zones want to have no more children.

The differences in fertility preferences of women and men are most notable in the Gash-Barka Zone where women are more than twice as likely as men to want no more children. The desire to cease childbearing among women is higher among those who have some schooling than among women with no education. The differences among the educated women are small. In contrast, among men the desire to have no more children increases substantially with increasing level of education. Men with at least primary education are more likely than women with the same education to want to limit family size, whereas among those with less education, women are more likely than men to want no more children.

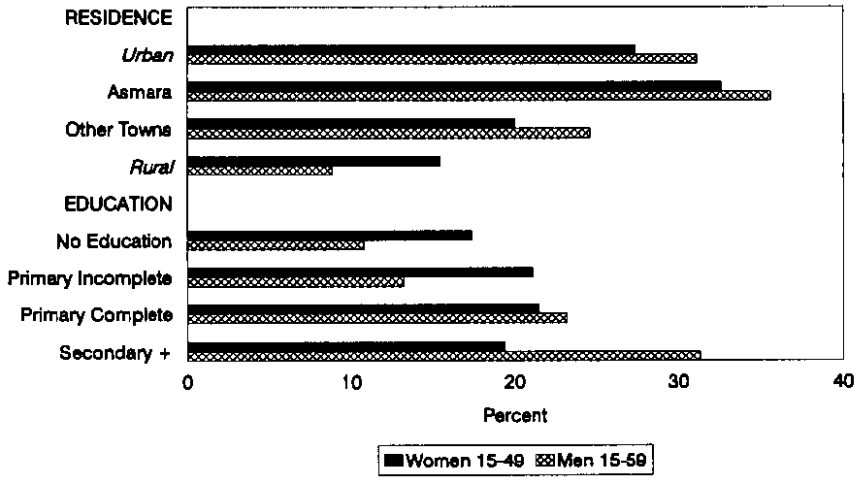
Table 6.4 Desire to limit childbearing by background characteristics

Percentage of currently married women and men who want no more children, by number of living children and selected background characteristics, Eritrea 1995

Desire for children	Number of living children[1] 0	1	2	3	4	5	6	7+	Currently married women	Currently married men
Residence										
Urban	2.8	1.6	10.1	19.7	31.7	45.6	46.4	72.3	27.4	31.1
Asmara	1.9	1.8	12.5	24.2	37.5	53.5	55.4	76.4	32.6	35.6
Other towns	4.0	1.3	7.3	15.1	23.4	37.3	32.0	62.4	20.0	24.6
Rural	1.4	4.3	6.4	6.6	14.4	21.8	35.8	50.1	15.4	8.8
Zone										
Southern Red Sea	*	(6.6)	*	*	23.5	*	*	*	12.9	(13.2)
Northern Red Sea	4.4	6.7	3.9	11.0	10.7	14.3	(24.5)	(33.7)	10.9	7.3
Anseba	(3.8)	0.0	5.8	8.2	(11.6)	(9.1)	(27.4)	29.1	11.3	7.7
Gash-Barka	0.0	6.2	16.4	9.7	22.7	(31.1)	(48.3)	(71.0)	18.9	7.6
Southern	(0.4)	1.8	1.2	5.1	10.2	31.0	39.6	56.9	17.2	14.1
Central	1.7	3.4	9.3	16.8	34.3	38.6	46.5	71.5	29.4	31.0
Education										
No education	1.6	3.5	6.0	7.7	15.3	23.7	35.7	51.8	17.4	10.8
Primary incomplete	2.7	2.8	8.6	14.7	32.0	(41.4)	50.3	80.0	21.1	13.2
Primary complete	*	(12.0)	(10.7)	(18.8)	*	*	*	*	21.5	23.2
Secondary+	(0.0)	1.3	(14.8)	(16.7)	*	*	*	*	19.4	31.3
Currently married women	1.7	3.7	7.3	9.3	17.9	26.6	38.7	56.2	18.1	NA
Currently married men	0.0	0.9	1.9	7.4	4.8	19.0	(30.5)	44.7	NA	14.2

Note: Women and men who have been sterilized are considered to want no more children. Figures in parentheses are based on 25 to 49 persons; an asterisk indicates that a figure is based on fewer than 25 women and has been suppressed.
[1] Includes current pregnancy
NA = Not applicable

Figure 6.3
Percentage of Currently Married Women and Men Who Want No More Children by Residence and Education



EDHS 1995

6.2 Need for Family Planning Services

Women who are currently married and who either do not want any more children or want to wait two or more years before having another child, but are not using contraception, are considered to have an *unmet need for family planning*.[1] Women who are using family planning methods are said to have a *met need for family planning*. Women with unmet and met need together constitute the *total demand for family planning*. Table 6.5.1 presents data on unmet need, met need and total demand for family planning among currently married women, according to whether the need is for spacing or limiting births. The corresponding findings for all women are presented in Table 6.5.2. The unmet need for unmarried women is only 0.3 percent (data not shown). The following discussion focuses on the data for currently married women (see Table 6.5.1).

Slightly more than 27 percent of married women in Eritrea have an unmet need for family planning services, 21 percent for spacing purposes and 6 percent for limiting births. Combined with the 8 percent of married women who are currently using a contraceptive method, the total demand for family planning encompasses more than one-third of married women in Eritrea. Thus, if all married women who say they want to space or limit their children were to use methods, the contraceptive prevalence rate could be increased from 8 percent to 35 percent of married women.

By age group, unmet need for family planning is highest among women age 15-19 (35 percent), varies between 28 and 30 percent among women 20-39, and is lowest among women 45-49 (16 percent), a very substantial proportion of whom are menopausal (see Table 5.9). Unmet need for *spacing* purposes is higher among women under age 40, while unmet need for *limiting* childbearing is higher among the older women. The level of unmet need is slightly higher among urban than rural women. Substantial zonal differences are observed in unmet need for contraception, from a low of 22 percent of married women in the Northern Red Sea, Anseba and Gash-Barka Zones to a high of 35 percent in the Southern Zone. Unmet need is about the same (26-27 percent) at all levels of education except for women who have not completed the primary level, who have the highest level of unmet need—32 percent (see Figure 6.4).

Less than one-quarter of the total demand for family planning is being satisfied for currently married women (see next-to-last column in Table 6.5.1). Demand is least likely to be satisfied among younger women (under 10 percent) and women living in the Anseba and Gash-Barka Zones. It is also less likely to be satisfied among women age 45-49 years (14-16 percent), those who live in rural areas, women in the Northern Red Sea Zone, and women with no education. For three subgroups the percentage of demand satisfied is above 40 percent: Asmara, the Central Zone of which Asmara is part, and women who have completed primary or higher education.

[1] For an exact description of the calculation, see footnote 1 in Table 6.5.1.

Table 6.5.1 Need for family planning services: currently married women

Percentage of currently married women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by selected background characteristics, Eritrea 1995

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satis-fied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	32.8	1.9	34.8	3.3	0.0	3.3	36.1	1.9	38.1	8.7	366
20-24	28.2	1.6	29.8	9.4	0.1	9.5	37.5	1.8	39.3	24.2	571
25-29	26.7	1.2	28.0	7.9	1.0	8.9	34.6	2.2	36.9	24.1	637
30-34	23.7	5.9	29.6	7.2	1.5	8.7	30.9	7.4	38.3	22.7	513
35-39	19.9	8.0	27.9	5.6	4.8	10.5	25.5	12.8	38.4	27.3	450
40-44	11.2	13.5	24.8	3.1	5.9	9.1	14.4	19.4	33.8	26.8	472
45-49	1.4	14.3	15.7	0.2	2.8	3.0	1.6	17.0	18.6	15.9	362
Residence											
Urban	21.8	7.9	29.7	11.8	7.5	19.3	33.6	15.4	49.0	39.4	768
Asmara	19.6	9.1	28.7	14.9	10.6	25.5	34.6	19.6	54.2	47.0	451
Other towns	24.9	6.1	31.0	7.3	3.2	10.5	32.3	9.3	41.5	25.4	317
Rural	21.2	5.6	26.8	4.0	0.6	4.6	25.2	6.2	31.4	14.6	2,604
Zone											
Southern Red Sea	25.0	3.6	28.6	5.1	1.1	6.2	30.1	4.7	34.8	17.9	87
Northern Red Sea	18.3	3.5	21.8	3.2	0.5	3.7	21.4	4.1	25.5	14.6	447
Anseba	16.3	6.1	22.4	0.9	0.9	1.9	17.3	7.0	24.3	7.6	441
Gash-Barka	16.4	5.2	21.6	1.2	0.6	1.8	17.6	5.8	23.4	7.7	735
Southern	29.1	6.0	35.1	8.1	1.0	9.1	37.2	7.0	44.2	20.6	1,025
Central	19.8	9.5	29.3	12.4	8.2	20.6	32.3	17.6	49.9	41.3	636
Education											
No education	20.6	6.1	26.7	3.3	0.9	4.2	24.0	7.0	30.9	13.6	2,636
Primary incomplete	25.6	6.4	32.0	8.0	5.2	13.1	33.6	11.6	45.1	29.1	445
Primary complete	22.4	5.5	27.9	18.2	9.3	27.5	40.6	14.8	55.4	49.6	136
Secondary+	20.9	6.0	26.9	29.8	10.1	39.9	50.6	16.1	66.8	59.8	154
Total	21.4	6.1	27.5	5.7	2.2	8.0	27.1	8.3	35.4	22.4	3,371

[1] Unmet need for *spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but want no more children. Excluded from the unmet need category are menopausal or infecund women and unmarried women who have not had sexual intercourse in the four weeks prior to the interview.

[2] Using for *spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for *limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

Table 6.5.2 Need for family planning services: all women

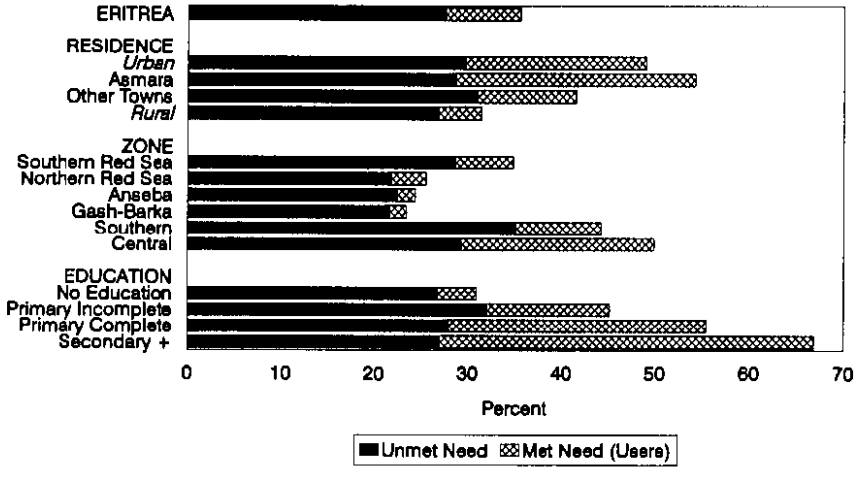
Percentage of all women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by selected background characteristics, Eritrea 1995

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satis-fied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	10.7	0.6	11.3	1.1	0.1	1.2	11.8	0.7	12.4	9.4	1,129
20-24	19.5	1.1	20.7	7.4	0.1	7.5	26.9	1.3	28.2	26.7	823
25-29	22.0	1.0	23.0	6.6	1.3	7.8	28.6	2.3	30.8	25.5	782
30-34	19.0	4.7	23.8	6.0	1.5	7.5	25.1	6.2	31.3	24.0	638
35-39	16.4	6.4	22.8	5.0	4.4	9.4	21.4	10.8	32.2	29.3	562
40-44	8.8	10.7	19.5	3.1	4.8	7.9	11.9	15.5	27.4	28.8	603
45-49	1.0	10.0	11.0	0.3	2.1	2.4	1.3	12.0	13.3	17.7	518
Residence											
Urban	10.2	3.7	13.9	6.2	4.0	10.2	16.3	7.7	24.1	42.3	1,648
Asmara	8.4	3.9	12.3	6.7	4.9	11.6	15.1	8.9	23.9	48.6	1,059
Other towns	13.4	3.3	16.7	5.2	2.4	7.6	18.6	5.7	24.3	31.3	589
Rural	16.3	4.3	20.6	3.2	0.6	3.8	19.6	4.8	24.4	15.5	3,406
Zone											
Southern Red Sea	15.6	2.2	17.8	3.5	1.1	4.6	19.1	3.3	22.4	20.5	139
Northern Red Sea	14.7	2.8	17.5	3.1	0.7	3.8	17.8	3.5	21.3	17.7	556
Anseba	11.2	4.2	15.4	0.8	0.6	1.5	12.0	4.8	16.9	8.8	642
Gash-Barka	12.7	4.0	16.8	1.4	0.7	2.1	14.1	4.7	18.8	11.1	957
Southern	21.6	4.4	26.0	6.2	0.9	7.1	27.8	5.3	33.1	21.4	1,392
Central	9.2	4.5	13.7	6.1	4.2	10.3	15.4	8.7	24.0	43.0	1,368
Education											
No education	16.4	4.8	21.2	2.9	0.8	3.7	19.3	5.7	24.9	15.0	3,332
Primary incomplete	14.8	3.6	18.4	5.0	3.2	8.2	19.7	6.9	26.6	31.0	786
Primary complete	7.0	1.9	8.9	6.0	3.3	9.3	13.1	5.2	18.2	51.0	435
Secondary+	6.4	1.8	8.2	9.8	3.6	13.4	16.3	5.4	21.7	62.0	501
Total	14.3	4.1	18.4	4.2	1.7	5.9	18.5	5.8	24.3	24.2	5,054

[1] Unmet need for *spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but want no more children. Excluded from the unmet need category are menopausal or infecund women and unmarried women who have not had sexual intercourse in the four weeks prior to the interview.

[2] Using for *spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for *limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

Figure 6.4
Currently Married Women with Unmet Need and Met Need for Family Planning Services by Background Characteristics



EDHS 1995

6.3 Ideal Family Size

Information on what women and men consider the ideal family size was elicited through two questions. Respondents who had no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" For respondents who had children, the question was rephrased as follows: "If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?" Some respondents, especially those for whom fertility control is an unfamiliar concept, might have some difficulty in answering this hypothetical question.

The results in Table 6.6 indicate that most women and men were able to give a numeric answer to this question; however, 17 percent of women and 6 percent of men gave non-numeric answers such as "it is up to God," "any number" or "do not know." The proportion of women and men giving non-numeric responses increases with the number of children, perhaps because these respondents are older and less likely to have thought about family size desires.

Eritrean women and men desire large families. Only 11 percent of women want three or fewer children, 18 percent would like to have four children (the modal response), 13 percent want five and 15 percent want six children. More than 1 in 4 women desire a family of seven or more children. The desire for large families increases with parity. The proportion of women indicating an ideal family size of 10 or more children increases from 15 percent for women with four children to 33 percent for women with seven or more children. The desire for children is even stronger among men. For example, 30 percent of men desire eight or more children compared with 22 percent of women.

Table 6.6 Ideal and actual number of children

Percent distribution of all women and men by ideal number of children, and mean ideal number of children for all women and men and for currently married women and men, according to number of living children, Eritrea 1995

Ideal number of children	Number of living children[1]								Total
	0	1	2	3	4	5	6	7+	
WOMEN									
0	0.8	1.1	0.2	0.7	0.0	0.8	1.3	1.1	0.7
1	0.6	0.6	0.1	0.1	0.1	0.3	0.0	0.0	0.3
2	7.8	4.1	2.6	0.7	2.0	1.6	0.4	0.4	3.6
3	12.6	9.0	4.3	5.2	0.9	0.4	2.1	0.3	6.4
4	30.2	22.0	20.1	9.0	9.8	5.9	6.2	4.1	17.8
5	15.2	18.1	14.9	13.3	10.3	10.8	3.0	2.7	12.8
6	11.9	14.4	16.6	23.4	18.8	13.4	13.4	9.9	14.9
7	1.9	5.2	5.0	7.5	7.5	8.4	6.3	3.7	4.9
8	2.9	4.1	8.4	10.8	12.9	15.0	17.4	15.7	8.5
9	0.8	0.4	0.5	0.9	2.9	1.8	1.5	5.0	1.4
10+	4.5	8.2	8.6	9.4	15.3	20.0	23.2	33.0	12.0
Non-numeric response	10.8	13.0	18.7	18.9	19.6	21.6	25.2	24.1	16.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,435	785	671	563	498	340	312	451	5,054
Mean ideal no. children									
All women	4.7	5.3	5.8	6.2	7.0	7.4	7.9	8.7	6.0
No. of women	1,281	683	545	456	400	266	233	342	4,208
Currently married women	5.3	5.5	5.9	6.4	7.1	7.5	7.8	8.7	6.6
No. of women	289	500	434	378	358	239	201	316	2,716
MEN									
0	0.1	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.1
1	0.1	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
2	4.7	1.6	0.0	0.6	0.0	0.0	(2.5)	1.2	2.5
3	11.7	9.4	3.1	2.3	2.9	6.3	(3.2)	1.8	7.4
4	26.9	17.4	18.5	7.5	12.5	4.6	(4.9)	9.9	18.0
5	19.6	20.2	15.2	9.5	14.5	11.3	(1.9)	8.2	15.3
6	11.5	7.8	22.7	19.7	6.4	7.2	(7.6)	10.9	12.2
7	5.7	6.1	7.3	15.3	13.3	17.7	(7.9)	5.2	8.3
8	3.9	9.6	1.0	12.4	14.0	15.4	(12.4)	5.7	7.1
9	0.0	1.4	0.0	1.1	2.3	3.3	(0.0)	0.0	0.6
10+	11.0	21.3	28.1	25.5	23.7	31.6	(59.6)	43.1	22.5
Non-numeric response	4.8	5.0	4.1	6.1	10.4	2.6	(0.0)	14.1	6.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	491	91	89	127	75	74	45	122	1,114
Mean ideal no. children									
All men	5.5	6.8	7.2	7.8	7.5	8.4	(9.3)	9.8	6.9
No. of men	468	86	85	119	67	72	45	105	1,047
Currently married men	6.1	6.9	6.8	7.7	7.5	8.4	(9.3)	9.8	7.8
No. of men	88	72	72	113	66	69	45	104	629

Note: The means exclude women and men who gave non-numeric responses. Figures in parentheses are based on 25 to 49 men.
[1] Includes current pregnancy

The mean number of children desired provides an index of ideal family size that is based on respondents who gave numeric responses, whereas in the previous paragraph the percentage of women and men desiring a specific number of children was affected by the proportion of respondents giving non-numeric responses. The average ideal number of children was 6.0 for women and almost one child higher for men (6.9 children). Compared with all women's ideal family size, the mean number of children desired by currently married women is higher (6.6 children). The difference in ideal family size is even greater between all men (6.9 children) and currently married men (7.8 children).

The ideal number of children increases with the actual number of living children for both men and women. The mean ideal number of children increases from 4.7 among childless women to 6.2 among women with three children, and to almost 9 among women with seven or more children. The mean number of children considered ideal by men is consistently higher than the mean number considered ideal by women; in some cases the differencc is more than one child. This correlation between actual and ideal number is driven by at least two phenomena. First, to the extent that women and men implement their preferences, those who want smaller families will tend to achieve small families. Second, women and men may "adjust" their ideal number of children upward, as the actual number of children increases (i.e., rationalization). The proportion of women and men whose ideal family size is lower than the current family size is extremely low in Eritrea.

Table 6.7 shows the mean ideal number of children for all women and for all men by age and selected background characteristics. The mean ideal family size increases with respondent's age from 4.8 children for women age 15-19 to 7.7 children for women age 45-49 and from 5.3 children to 8.2 children among men for the same age range. At every age, rural women have higher family size norms than urban women. The difference in desired family size is even greater among men living in rural and urban areas. Women and men

Table 6.7 Mean ideal number of children by background characteristics

Mean ideal number of children for all women by age and selected background characteristics, and for all men by age and selected background characteristics, Eritrea 1995

Background characteristic	Age							All women	All men
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Residence									
Urban	4.3	4.6	4.9	4.9	6.0	6.4	6.9	5.1	5.2
Asmara	4.2	4.4	4.7	4.7	5.5	6.2	6.4	4.9	4.6
Other towns	4.3	5.0	5.3	5.5	6.8	6.9	7.8	5.6	6.3
Rural	5.2	5.8	6.1	6.8	7.2	8.2	8.1	6.5	7.8
Zone									
Southern Red Sea	(3.6	(4.5)	(5.8)	*	*	*	*	5.6	9.3
Northern Red Sea	5.2	5.8	6.6	7.5	7.6	8.3	8.8	7.0	9.5
Anseba	5.8	6.7	7.3	8.1	9.0	10.6	9.8	7.7	10.1
Gash-Barka	4.4	5.4	5.3	6.1	6.3	6.5	6.2	5.6	7.2
Southern	5.1	5.6	5.8	6.3	6.5	7.4	8.2	6.2	5.9
Central	4.3	4.6	5.0	4.9	5.9	6.6	6.8	5.1	4.9
Education									
No education	5.5	6.1	6.2	6.8	7.2	7.9	7.8	6.8	8.8
Primary incomplete	4.7	5.1	5.3	5.1	5.7	6.5	6.8	5.2	6.2
Primary complete	4.2	4.5	4.8	(5.1)	6.1	(7.0)	6.7	4.6	5.4
Secondary+	4.1	4.3	4.2	3.8	*	*	*	4.2	4.3
All women	4.8	5.3	5.7	6.2	6.7	7.6	7.7	6.0	NA
All men	5.3	5.3	6.5	7.3	7.0	8.1	8.2	NA	6.9

Note: The ideal number of children for men 50-59 is 9.3. Figures in parentheses are based on 25 to 49 women; an asterisk indicates that a figure is based on fewer than 25 women and has been suppressed.
NA = Not applicable

in the Anseba and Northern Red Sea Zones desire more children than those in other zones. In all zones except the Southern and Central Zones, men's mean ideal family size is higher than women's. Ideal family size is strongly related to level of education attained; as educational attainment increases, desired family size decreases for both women and men. Also, with increasing education, the differences between women's and men's ideals become narrower and for women and men with secondary or higher education, the gap practically disappears.

6.4 Wanted and Unwanted Fertility

Women were asked a series of questions regarding all of their children born in the last three years and the current pregnancy, if any, to determine whether each conception was planned, unplanned, or mistimed (wanted at a later time). The answer to these questions provide a potentially powerful indicator of the degree to which couples successfully control their fertility. Also, this information can be used to gauge the effect of the prevention of unwanted births on period fertility rates.

Table 6.8 shows the percent distribution of births in the three years before the survey and current pregnancies by fertility planning status. Five percent of recent births[2] were reported to be unwanted, while another 14 percent were reported as mistimed (wanted later) and 81 percent were wanted then. The percentage of births that were mistimed or unwanted increases from 12 percent for first order births to 21 percent for second order births and then declines but remains steady at 15-16 percent for third to fifth order births before increasing again for higher order births. Births of order six or higher are much more likely to

Table 6.8 Fertility planning status

Percent distribution of births in the three years preceding the survey and current pregnancies by fertility planning status, according to birth order and mother's age at birth, Eritrea 1995

Birth order and mother's age at birth	Planning status of conception				Total	Number of births[1]
	Wanted then	Wanted later	Not wanted	Missing		
Birth order						
1	87.6	10.4	1.9	0.1	100.0	680
2	78.1	20.2	1.1	0.7	100.0	511
3	83.3	15.2	1.2	0.3	100.0	426
4	83.4	11.5	3.2	2.0	100.0	369
5	82.2	12.8	3.2	1.7	100.0	302
6	77.8	13.3	8.2	0.8	100.0	253
7+	71.2	11.7	16.6	0.5	100.0	507
Age at birth						
<20	84.1	13.9	2.0	0.0	100.0	481
20-24	81.9	15.8	1.7	0.6	100.0	696
25-29	81.2	15.8	2.3	0.7	100.0	733
30-34	82.3	11.0	5.4	1.3	100.0	486
35-39	75.0	11.8	11.9	1.4	100.0	395
40-44	77.8	8.7	13.0	0.4	100.0	216
45-49	(69.3)	(2.7)	(26.3)	(1.7)	100.0	40
Total	80.8	13.5	4.9	0.7	100.0	3,047

Note: Figures in parentheses are based on 25 to 49 births and current pregnancies.
[1] Includes current pregnancies

[2] In this discussion, the word *birth* includes current pregnancies.

be unwanted than lower order births. Similarly, a much larger proportion of births to women over 35 are unwanted than births to younger women. While less than 5 percent of births to women under age 35 are unwanted, more than one-quarter of births to women 45 and older are unwanted. Overall, lower order births and births to younger women are more likely to be mistimed (wanted later) than births to older women, indicating failure to space births.

Table 6.9 presents wanted fertility rates. The *wanted fertility rate* is calculated in the same manner as the total fertility rate, but unwanted births are excluded from the numerator. For this purpose, unwanted births are defined as those which exceed the number considered ideal by the respondent. Women who did not report a numeric ideal family size were assumed to want all their births. The wanted fertility rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been prevented. A comparison of the total wanted fertility rate and the total fertility rate suggests the potential demographic impact of the elimination of unwanted births.

Table 6.9 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by selected background characteristics, Eritrea 1995

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	3.8	4.2
Asmara	3.2	3.7
Other towns	4.8	5.1
Rural	6.5	7.0
Zone		
Northern Red Sea	(6.4)	(6.5)
Anseba	(5.8)	(6.0)
Gash-Barka	(5.1)	(5.6)
Southern	7.5	8.1
Central	3.9	4.4
Education		
No education	6.4	6.9
Primary incomplete	(5.0)	(5.5)
Primary complete	(3.9)	(4.3)
Secondary+	(2.6)	(3.0)
Total	5.7	6.1

Note: Rates are based on births to women 15-49 in the period 1-36 months preceding the survey. Fertility rates in parentheses are based on 500-999 women age 15-49; rates for Southern Red Sea are not shown because they were based on fewer than 500 women.

The total wanted fertility rate for Eritrea is 5.7, roughly one-half child lower than the total fertility rate, or stated another way, the total wanted fertility rate is 93 percent of the observed total fertility rate. Overall, the gap between wanted and observed fertility is small; however, the relative gap between wanted and observed fertility is slightly wider among women living in Asmara and those with some secondary education; for these two groups the wanted fertility rates are around 87 percent of the corresponding total fertility rate.

CHAPTER 7

EARLY CHILDHOOD MORTALITY

7.1 Background and Assessment of Data Quality

This chapter presents information on mortality among children under five years of age in Eritrea. Specifically, estimates are presented on levels, trends and differentials in neonatal, postneonatal, infant, and child mortality. This information is relevant to both the demographic assessment of the population and the evaluation of health policies and programs. Estimates of infant and child mortality may be used as inputs for population projections, particularly if the level of adult mortality is known from another source or can be inferred with reasonable confidence. Information on mortality of children also serves the needs of agencies providing health services by identifying sectors of the population which are at high mortality risk.

The rates of childhood mortality presented here are defined as follows:

- **Neonatal mortality** (NN): the probability of dying within the first month of life,
- **Postneonatal mortality** (PNN): the arithmetic difference between infant and neonatal mortality,
- **Infant mortality** (${}_1q_0$): the probability of dying between birth and the first birthday,
- **Child mortality** (${}_4q_1$): the probability of dying between exact age one and the fifth birthday,
- **Under-five mortality** (${}_5q_0$): the probability of dying between birth and the fifth birthday.

All rates are expressed as deaths per 1,000 live births, except child mortality which is expressed as deaths per 1,000 children surviving to the first birthday.

The mortality rates presented in this chapter are calculated from information drawn from the questions asked in the birth history section of the women's questionnaire. Preceding the birth history, probing questions are posed on the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live with the mother, the number who live elsewhere, and the number who have died). In the birth history, for each live birth, information is collected on sex, month and year of birth, survivorship status and current age, and age at death if the child died.

The quality of mortality estimates calculated from retrospective birth histories depends on the completeness with which births and deaths are reported and recorded. The most potentially serious data quality problem is the selective omission from the birth history of births that did not survive, which leads to underestimation of mortality rates. Other potential problems include displacement of birth dates, which may cause a distortion of mortality trends, and misreporting of age at death, which may distort the age-pattern of mortality.

When selective omission of childhood deaths occurs, it is usually most severe for deaths occurring very early in infancy. If early neonatal deaths are selectively underreported, the result would be an abnormally low ratio of deaths under seven days to all neonatal deaths and an abnormally low ratio of neonatal to infant mortality. Underreporting of early infant deaths is usually more common for births that occurred further back in time; hence, it is useful to examine the ratios over time.

Inspection of these ratios (shown in Appendix Tables C.5 and C.6) indicate that there is no severe underreporting of early childhood mortality for two reasons. First, the proportion of neonatal deaths is quite high (71 percent) for the most recent five-year period and, with the exception of the period 10-14 years before the survey, the proportion is relatively constant over time. Second, the proportion of infant deaths that occur during the first month of life is plausible (see Appendix C.6).

However, there is evidence of "heaping" at age at death 12 months, despite instructions to interviewers to probe for the exact age at death in months. This heaping derives from transference of deaths from earlier and later months to 12 months and so it has the effect of reducing estimates of infant mortality and increasing estimates of child mortality, while not affecting under-five mortality. Adjustments were made to smooth the heaping[1] and both unadjusted and adjusted rates are presented here.

It is also important to note that any method of measuring childhood mortality that relies on mothers' reports (e.g., birth histories) rests on the assumption that female adult mortality is not high or, if it is high, that there is little or no correlation between the mortality risks of mothers and their children. In countries with high rates of female adult mortality, these assumptions may not hold and the resulting childhood mortality rates will be understated to some degree.

7.2 Levels and Trends in Early Childhood Mortality

Table 7.1 presents unadjusted and adjusted childhood mortality rates for three five-year periods, namely, 0-4, 5-9, and 10-14 years before the survey. Under-five mortality for the period 0-4 years before the survey (circa 1991-1995) is 136 deaths per 1,000 births, which means that almost one in seven children born in Eritrea dies before reaching the fifth birthday. About half of these deaths occur at age 1-4 years (child mortality) —68 deaths per 1,000 children who survived the first year of life (adjusted data). Postneonatal mortality (1-11 months) is 41 deaths per 1,000 live births and neonatal mortality (<1 month) is 25 deaths per 1,000 live births. The infant mortality rate is 72 deaths per 1,000 live births.

Table 7.1 and Figure 7.1 from the EDHS data indicate that survival at all ages under five years has improved from the period 1981-85 to 1991-95. For example, infant mortality has declined by 21 percent and under-five mortality by 27 percent. The apparent sharp decline in neonatal mortality from 5-9 to 0-4 years before the survey may be due to sampling errors, which are very high for these rates (see Appendix B). However, there are indications of steadily falling under-five mortality rates since 1981-85. Although it is useful to evaluate the quality of estimates on levels and trends in childhood mortality and to examine changes over time based on retrospective data from the present survey, it would be more useful and reliable to examine changes over time in the context of estimates derived from previously collected data. Since there are no other surveys of this type conducted previously, the levels and trends are examined based on retrospective data from the EDHS survey.

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[1] The adjustment factors are calculated by assuming that half of the reported deaths at age 12 months (including those at age "one year") actually occurred at ages 0-11 months. Thus, the number of deaths to be transferred into infancy is obtained by dividing the weighted number of deaths reported at age 12 months by two for each 5-year period. The adjustment factor for infant mortality is computed by adding the number of reported deaths at 0-11 months to the number of deaths adjusted back to 0-11 months from 12 months and dividing the sum by the number of reported deaths at 0-11 months. Similarly, for child mortality, the adjustment factor was calculated by taking the number of deaths reported as occurring at ages 12-48 months minus the number of deaths assumed to have been heaped up from 0-11 months (½ of the deaths reported at 12 months) and dividing that by the number of deaths reported as occurring at 12-48 months. Multiplying the reported infant or child mortality rates by the adjustment factors produces the adjusted mortality rates. Adjustment results in infant mortality rates that are approximately 10 percent higher and child mortality rates that are about 10 percent lower than the unadjusted rates.

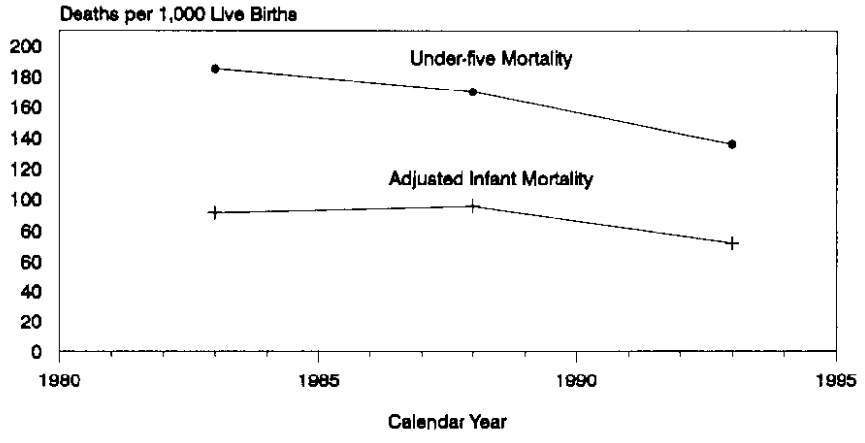
Table 7.1 Infant and child mortality

Infant and child mortality rates by five-year periods preceding the survey, Eritrea 1995

		Unadjusted mortality rate					Adjusted mortality rate[1]	
Years preceding survey	Approximate time period	Neonatal mortality (NN)	Postneonatal mortality (PNN)	**Infant mortality** (${}_1q_0$)	Child mortality (${}_4q_1$)	**Under-five mortality** (${}_5q_0$)	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)
0-4	1991-95	24.8	40.7	65.6	75.6	136.2	71.9	67.7
5-9	1986-90	46.4	39.8	86.2	92.1	170.4	95.6	81.8
10-14	1981-85	35.7	48.6	84.3	110.3	185.4	91.4	100.9

[1] See footnote in Section 7.1 for a description of the adjustment.

Figure 7.1
Trends in Infant and Under-five Mortality Rates



EDHS 1995

7.3 Socioeconomic Differentials in Early Childhood Mortality

Differentials in the various mortality rates by selected background characteristics are presented in Table 7.2. The table focuses largely on basic socioeconomic characteristics, including urban-rural residence, administrative zones, mother's educational level, and maternal care prior to birth. A ten-year period is used to calculate the mortality estimates in order to have a sufficient number of cases in each category, except for medical maternity care, for which a three-year period is used. The rates are based on a sufficient number of cases in each category to ensure statistically reliable estimates.

Table 7.2 Infant and child mortality by socioeconomic characteristics

Infant and child mortality rates for the ten-year period preceding the survey, by socioeconomic characteristics and medical maternity care, Eritrea 1995

Socioeconomic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	**Infant mortality** (${}_1q_0$)	Child mortality (${}_4q_1$)	**Under-five mortality** (${}_5q_0$)
Residence					
Urban	37.7	42.1	79.8	53.3	128.9
Rural	34.6	39.8	74.4	92.4	159.9
Zone					
Southern Red Sea	(55.3)	51.5	106.8	147.8	238.8
Northern Red Sea	37.6	55.8	93.4	103.0	186.7
Anseba	23.5	46.8	70.3	81.5	146.1
Gash-Barka	41.6	45.8	87.4	112.6	190.1
Southern	36.5	34.5	71.0	81.0	146.2
Central	30.5	26.8	57.3	37.0	92.2
Education					
No education	35.3	40.7	76.0	88.6	157.8
Primary incomplete	35.1	40.1	75.3	59.2	130.0
Primary complete	(38.4)	48.1	86.6	49.6	131.9
Secondary+	(32.2)	23.9	56.2	45.6	99.2
Medical maternity care[1]					
No antenatal or delivery care	20.4	42.0	62.5	NA	NA
Either antenatal or delivery care	9.8	28.9	38.8	NA	NA
Both antenatal and delivery care	33.6	19.5	53.1	NA	NA
Total	35.3	40.3	75.6	83.2	152.5

Note: Unadjusted rates are presented. Figures in parentheses are rates based on 250-499 births.
[1] Refers to births in the three years before the survey
NA = Not applicable

Under-five mortality is higher in rural areas (160 per 1,000) than in urban areas (129 per 1,000), and the urban-rural difference is especially pronounced during the 1-4 year age segment (child mortality). However, infant and neonatal mortality are slightly higher in urban areas than in rural areas.

Differences in mortality by administrative zones are also quite marked. Mortality is highest in the Southern Red Sea Zone, where about one in four children does not live to see the fifth birthday, followed by Gash-Barka and Northern Red Sea Zones, where about 20 percent of the children die before the fifth birthday. Mortality is lowest in Central, Southern and Anseba Zones, where reported under-five year mortality rates are less than 150 deaths per 1,000 live births. There is a strong link between mother's level of education and children's survival. The children of uneducated mothers experience an under-five mortality rate of 158 deaths per 1,000 live births, compared with 99 deaths per 1,000 live births for children of women with secondary or more education. There is little difference in under-five mortality between children of women with primary incomplete and those with primary complete.

Medical Maternity Care

The association between mortality and maternal care during pregnancy and delivery is not straightforward. As expected, children born to women who obtain *both* antenatal and delivery care from medically trained persons have lower mortality than children whose mothers do not receive any maternity care, with the exception of neonatal mortality. Surprisingly, however, children born to women who received only antenatal or delivery care have lower neonatal and infant mortality than children whose mothers received both types of care. This anomaly could be due to the relatively small number of cases used in generating the estimates. Therefore, child survival status by maternity care has to be treated with caution.

7.4 Biodemographic Differentials in Early Childhood Mortality

The relationship between early childhood mortality and various demographic variables is examined in Table 7.3. Male children experience higher mortality than their female counterparts. Under-five mortality rates for males and females are 163 and 141 deaths per 1,000 live births, respectively. The excess mortality among male children does not diminish after infancy as expected.

Table 7.3 Infant and child mortality by biodemographic characteristics

Infant and child mortality rates for the ten-year period preceding the survey, by selected biodemographic characteristics, Eritrea 1995

Biodemographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	**Infant mortality ($_1q_0$)**	Child mortality ($_4q_1$)	**Under-five mortality ($_5q_0$)**
Sex of child					
Male	43.2	38.7	81.9	88.8	163.4
Female	27.1	41.9	69.0	77.7	141.3
Age of mother at birth					
< 20	41.0	48.7	89.7	80.4	162.9
20-29	35.8	38.5	74.3	88.5	156.2
30-39	36.1	41.3	77.4	75.7	147.2
40-49	(14.5)	28.2	42.7	97.3	135.8
Birth order					
1	46.3	40.6	86.9	76.6	156.8
2-3	32.1	36.8	68.8	92.9	155.4
4-6	30.4	42.8	73.2	77.4	144.9
7+	37.3	41.5	78.9	83.4	155.6
Previous birth interval					
< 2 years	52.0	61.4	113.4	115.3	215.6
2-3 years	25.3	32.9	58.1	76.7	130.4
4 or more years	18.4	18.8	37.2	39.8	75.6
Size at birth[1]					
Small or very small	22.3	21.3	43.1	NA	NA
Average or larger	17.3	38.3	55.7	NA	NA
Total	35.3	40.3	75.6	83.2	152.5

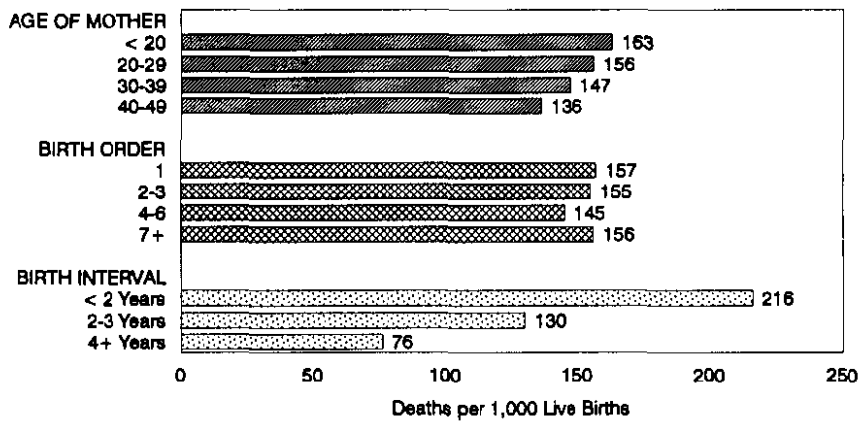
Note: Unadjusted rates are presented. Figures in parentheses are rates based on 250-499 births.
[1] Refers to births in the three years before the survey
NA = Not applicable

The relationship between childhood mortality and mother's age at birth shows higher mortality for younger mothers, as expected. Surprisingly, however, mortality appears to be generally lower for children born to older mothers, except at ages 1-4 years (see Figure 7.2). Generally, first births and births of order 7 and higher have higher mortality rates than births of order 2-6.

A marked relationship exists between the length of the preceding birth interval and risk of death in early childhood. The EDHS data indicate that short birth intervals significantly reduce a child's chances of survival. Children born less than two years after a preceding sibling are three times as likely to die in infancy as those born four years or more after a preceding sibling (113 versus 37 per 1,000 births). During ages 1-4 years, children born after a short interval are nearly three times more likely to die than their counterparts born after a long interval (115 versus 40 per 1,000). This striking link between the pace of childbearing and child survival rates persists in all age groups examined. These findings point to the potential for mortality reduction that could result from successful efforts to promote birth spacing in Eritrea.

A child's size at birth is an important indicator of the risk of dying during infancy, particularly during the first months of life. In the EDHS, mothers with births in the three years preceding the survey were asked whether the child was very small, small, average size, large, or very large at birth. This type of subjective assessment has been shown to correlate closely with actual birth weight. As expected, newborns perceived by their mothers to be very small or small are more likely to die in the first month than those perceived as average or larger in size. Those newborns who are perceived as average or larger in size are at higher risk of dying in the first year and at 1-11 months (postneonatal mortality) than those perceived to be small or very small.

Figure 7.2
Under-Five Mortality by Selected Demographic Characteristics



Note: Rates are for the 10-year period preceding the survey.

EDHS 1995

7.5 High-Risk Fertility Behavior

Previous research has shown the strong relationships between fertility patterns and children's survival chances. Results presented in the previous section bear this out. Typically, infants and young children have a higher risk of dying if they are born to very young mothers or older mothers, if they are born after a short interval, or if their mothers have already had many children. In the following analysis, mothers are classified as too young if they are less than 18 years old at the time of birth, and too old if they are age 35 years or more at the time of birth. A short birth interval is defined as one less than 24 months, and a high-order birth as one occurring after three or more previous births (i.e., birth order 4 or higher). Births are also cross-classified by combinations of these characteristics. Thus, a birth may have from zero to three potentially high-risk characteristics.

Table 7.4 shows the percentage of births in the five years preceding the interview that fall in the various child survival risk categories, as well as the distribution of currently married women across these categories. It also shows the relative risk of dying for each risk category. The purpose of this table is to identify areas in which changes in reproductive behavior would be likely to effect a reduction in infant and child mortality. Mortality risks are represented here by the proportion of children born during the five years prior to the survey who had died by the time of the survey. The "risk ratio" is the ratio of the proportion of deceased children in a given high-risk category to the proportion of deceased children not in any high-risk category.

Sixty-five percent of children born in the five years preceding the survey are in one or more elevated risk categories. High birth order is the most common single high-risk category, accounting for 21 percent of births. Other single high-risk categories are births that occur less than two years after a previous birth (8 percent), births to women under 18 years (7 percent), and

Table 7.4 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying, and the percent distribution of currently married women at risk of conceiving a child with an elevated risk of dying, by category of increased risk, Eritrea 1995

Risk category	Births in 5 years preceding the survey: Percentage of births	Births in 5 years preceding the survey: Risk ratio	Percentage of currently married women[a]
Not in any high-risk category	20.9	1.00	13.2[b]
Unavoidable risk category (First births to women 18-34)	14.5	1.73	8.0
Single high-risk category			
Mother's age < 18	6.6	1.80	3.2
Mother's age ≥ 35	1.3	2.07	2.6
Birth interval < 24 months	7.5	2.73	11.7
Birth order > 3	20.5	1.10	12.5
Subtotal	35.9	1.61	30.0
Multiple high-risk category			
Age <18 & birth interval <24[c] months	0.5	2.35	0.7
Age ≥35 & birth interval <24 months	0.3	1.70	0.1
Age ≥35 & birth order >3	15.9	0.90	28.8
Age ≥35 & birth interval <24 months & birth order >3	5.1	2.83	7.3
Birth interval <24 months & birth order >3	6.9	3.07	11.9
Subtotal	28.6	1.79	48.8
In any high-risk category	64.6	1.69	78.8
Total	100.0	-	100.0
Number of births	4,169	-	3,371

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of births *not in any high-risk category.*

[a] Women were assigned to risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months, age older than 34 years and 2 months, latest birth less than 15 months ago, and latest birth of order 3 or higher.

[b] Includes sterilized women

[c] Includes the combined categories *Age <18 and birth order >3.*

births to women age 35 or older (1 percent). Twenty-nine percent of births fall in multiple high-risk categories, such as births to women 35 years or older who already have three or more births (16 percent), and births that occur less than two years after a previous birth among women who already have three or more births (7 percent). Additionally, 15 percent of births (i.e., first births among women 18-34) have unavoidable risk.

The risk ratios in Table 7.4 compare specific high-risk categories with the reference category, children not in any high-risk category, which has a risk ratio of 1.00. The larger the risk ratio, the higher the level of mortality. Overall, children who fall in a single elevated risk category have a ratio of 1.6, whereas children who are in multiple high-risk categories have a risk ratio of 1.8. Children born after a short birth interval are nearly three times (2.7) as likely to die as those in the reference category. Children born to older mothers (35 years and older) and to younger mothers (under 18 years) are twice as likely to die as those in the reference category. With regard to children who fall in multiple elevated risk categories, those born after a short birth interval whose mothers are 35 years or older and have had three or more births are nearly three times (2.8) as likely to die as children in the reference category. Similarly, children born after a short birth interval whose mothers are under 18 years are more than twice (2.4) as likely to die as those who are not in any high-risk category. Children whose birth order is higher than three who were born less than 24 months after a previous birth are three times as likely to die as those in the reference category.

Table 7.4 also shows the distribution of currently married women by potential risk category if they were to conceive at the time of the survey. The data reveal that 30 percent of currently married women have the potential for giving birth to a child with a single elevated risk category, while as much as 49 percent of women have the potential to have children with multiple high-risk factors. In all, 79 percent of married women have the potential to give birth to children at elevated risk of dying.

CHAPTER 8

MATERNAL AND CHILD HEALTH

This chapter presents the EDHS findings in three areas of importance to maternal and child health: maternal care and characteristics of the newborn, childhood vaccinations, and common childhood illnesses and their treatment. Combined with data on childhood mortality, this information can be used to identify subgroups of women whose babies are "at risk" because of nonuse of maternal and child health services, and to provide information to assist in the planning of appropriate improvements in services. Data were obtained for all live births that occurred in the three years preceding the survey.

8.1 Antenatal Care

Prevalence and Source of Antenatal Checkup

Proper care during pregnancy is important for the health of both the mother and the baby. Table 8.1 shows the percent distribution of births in the three years preceding the survey by source of antenatal care

Table 8.1 Antenatal care

Percent distribution of births in the three years preceding the survey by source of antenatal care during pregnancy, according to selected background characteristics, Eritrea 1995

Background characteristic	Antenatal care provider[1]					Total	Number of births
	Doctor	Nurse/ Trained midwife	Traditional birth attendant[2]	No one	Missing		
Mother's age at birth							
< 20	22.9	23.3	0.2	53.5	0.0	100.0	417
20-34	25.6	24.5	0.3	49.4	0.2	100.0	1,622
35+	24.8	22.4	0.2	52.5	0.1	100.0	541
Birth order							
1	26.7	26.2	0.2	46.8	0.1	100.0	584
2-3	26.6	22.2	0.2	50.7	0.3	100.0	790
4-5	21.6	23.3	0.7	54.3	0.1	100.0	562
6+	24.4	24.3	0.1	51.0	0.1	100.0	644
Residence							
Urban	40.9	44.4	0.1	14.2	0.4	100.0	542
Asmara	45.7	43.1	0.3	10.5	0.5	100.0	287
Other towns	35.6	45.8	0.0	18.4	0.2	100.0	255
Rural	20.7	18.4	0.3	60.4	0.1	100.0	2,037
Zone							
Southern Red Sea	25.9	2.2	2.3	67.3	2.2	100.0	68
Northern Red Sea	14.7	23.1	0.3	62.0	0.0	100.0	341
Anseba	23.5	23.2	0.0	53.3	0.0	100.0	330
Gash-Barka	22.6	15.2	0.8	61.1	0.3	100.0	499
Southern	21.6	21.1	0.0	57.3	0.0	100.0	882
Central	42.6	42.9	0.2	14.0	0.3	100.0	459
Mother's education							
No education	20.4	18.7	0.4	60.5	0.1	100.0	1,987
Primary incomplete	34.8	39.4	0.0	25.3	0.5	100.0	359
Primary complete	51.4	39.2	0.0	9.4	0.0	100.0	119
Secondary+	46.9	49.3	0.0	3.8	0.0	100.0	115
Total	25.0	23.9	0.3	50.7	0.2	100.0	2,580

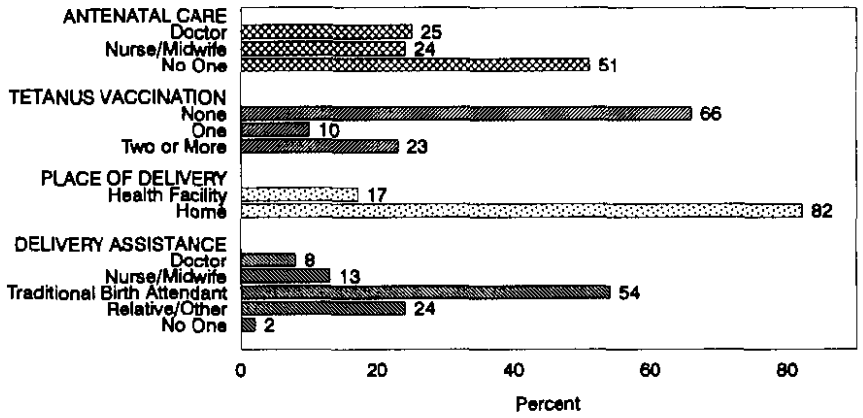
[1] If the respondent mentioned more than one provider, only the most qualified provider is considered.
[2] Traditional midwife

received during pregnancy, according to selected background characteristics. Interviewers were instructed to record all persons a woman had seen for care, but if more than one person was seen, in the table only the provider with the highest qualifications is considered. It should be noted, however, that the type and quality of care is not considered. The data indicate that for 49 percent of births, mothers received antenatal care either from a doctor (25 percent), or trained nurse or midwife (24 percent). Almost no women received antenatal care from a traditional birth attendant (i.e., traditional midwife) and for 51 percent of births mothers received no antenatal care at all (see Figure 8.1).

There are only small differences in antenatal care coverage by either mother's age or birth order (see Table 8.1). For births in the preceding three years, mothers in urban areas are twice as likely to receive antenatal care as mothers in rural areas and women in Asmara are most likely to benefit from antenatal care, especially from doctors.

Women in the Central Zone are much more likely to receive antenatal care from medical personnel (86 percent) than women in other zones. The zone with the lowest antenatal care coverage is the Southern Red Sea Zone (28 percent), while coverage in other zones ranges from 38 to 47 percent. There is a positive relationship between mother's education and receipt of antenatal care. The proportion of births for which mothers obtained antenatal care is 39 percent for uneducated mothers and 74 percent for mothers who have not completed primary school. Antenatal care coverage exceeds 90 percent among mothers who have completed primary school (91 percent) or have attended secondary school or higher (96 percent).

Figure 8.1
Percent Distribution of Births by Antenatal Care and Delivery Characteristics



Note: Based on births in the three years preceding the survey.

EDHS 1995

Number and Timing of Antenatal Visits

Antenatal care is important to both the mother and child. The number and timing of antenatal care visits are considered important in preventing adverse pregnancy outcome. Care is most effective if the visits are started early during pregnancy and continue at regular intervals throughout the pregnancy. It is generally recommended that antenatal care visits be made monthly for the first seven months, fortnightly in the eighth month, and then weekly until birth. If the first antenatal visit is made at the third month of pregnancy, this schedule translates to a total of about 12 to 13 visits.

Data on the number of visits made by pregnant women are given in Table 8.2. As was mentioned above, 51 percent of the women did not make any visits to health facilities for antenatal care during their pregnancies. For births in the three years before the survey, 27 percent of mothers made four or more antenatal care visits, while 16 percent made only two or three visits. The median number of antenatal care visits for those with antenatal care was only 4.3, which is far fewer than the recommended number of 12-13 visits.

Sixty-one percent of births for which mothers received antenatal care in Eritrea (30 percent of all births) benefit from antenatal care during the first five months of gestation. However, one-sixth of pregnant women do not receive antenatal care until the sixth or seventh month of pregnancy. The median length of time a woman is pregnant at the time of the first antenatal care visit is 5.4 months.

Table 8.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of births in the three years preceding the survey by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Eritrea 1995

Number and timing of ANC visits	Percent
Number of visits	
0	50.7
1	5.7
2-3	16.4
4 or more	26.6
Don't know/missing	0.6
Total	100.0
Median number of visits	4.3
Number of months pregnant at time of first visit	
No antenatal care	50.7
<6 months	30.0
6-7 months	15.8
8+ months	3.3
Don't know/missing	0.2
Total	100.0
Median number of months pregnant at first visit (for those with ANC)	5.4
Number of births	2,580

Tetanus Toxoid Vaccinations

An important component of antenatal care is ensuring that pregnant women and children are adequately protected against tetanus. Tetanus toxoid injections are given during pregnancy for prevention of neonatal tetanus, one of the principal causes of death among infants in many settings around the world. For full protection, a pregnant woman should receive two doses of the toxoid. However, if a woman has been vaccinated during a previous pregnancy, she may only require one dose for a current pregnancy.

Table 8.3 presents data on tetanus toxoid coverage and receipt of iron tablets and multiple vitamin tablets during pregnancy for births in the three years preceding the EDHS. Less than one-fourth of births received the protection of two or more doses of tetanus toxoid during pregnancy, while 10 percent received only one dose and 66 percent were not protected by any tetanus toxoid vaccination (see Figure 8.1). Mothers are more likely to have received at least two tetanus vaccinations when they were pregnant with their first birth (30 percent) than for subsequent births (21-22 percent).

Compared with rural births, births occurring in Asmara and other towns are much more likely to have benefited from two doses of tetanus toxoid than to have not received any tetanus toxoid protection at all. Zonal differentials indicate that the proportion of births for which mothers who received two or more tetanus toxoid vaccinations during pregnancy was highest in the Central Zone (50 percent) and lowest in the Southern Red Sea Zone (12 percent). The proportion of births protected by two tetanus toxoid vaccinations varies between 14 and 19 percent in the other zones.

Table 8.3 Tetanus toxoid vaccinations and antenatal supplementation

Percent distribution of births in the three years preceding the survey by number of tetanus toxoid injections mother received during pregnancy and percentage who received iron tablets and multiple vitamin tablets, according to selected background characteristics, Eritrea 1995

Background characteristic	Number of tetanus toxoid injections							
	None	One dose	Two doses or more	Don't know/ Missing	Total	Iron tablets	Multiple vitamin tablets	Number of births
Mother's age at birth								
< 20	63.8	9.3	25.6	1.3	100.0	25.2	28.6	417
20-34	65.4	10.8	22.5	1.3	100.0	31.3	34.9	1,622
35+	67.2	9.1	22.8	0.9	100.0	27.3	32.3	541
Birth order								
1	59.1	10.3	29.5	1.2	100.0	33.5	33.8	584
2-3	65.3	11.3	21.8	1.6	100.0	28.0	32.7	790
4-5	67.7	10.4	21.0	0.9	100.0	25.8	30.2	562
6+	69.7	8.7	20.5	1.1	100.0	30.9	36.5	644
Residence								
Urban	28.0	21.4	48.2	2.3	100.0	50.5	56.3	542
Asmara	26.3	23.2	46.7	3.8	100.0	48.7	56.6	287
Other towns	29.9	19.4	50.0	0.6	100.0	52.5	56.0	255
Rural	75.5	7.2	16.3	0.9	100.0	23.9	27.2	2,037
Zone								
Southern Red Sea	74.1	5.9	11.6	8.3	100.0	13.3	19.5	68
Northern Red Sea	74.8	6.3	16.9	2.0	100.0	25.0	28.4	341
Anseba	72.5	8.2	19.4	0.0	100.0	33.4	42.4	330
Gash-Barka	77.0	7.3	14.4	1.3	100.0	29.0	36.7	499
Southern	70.7	10.4	18.6	0.2	100.0	23.0	21.7	882
Central	29.8	18.0	49.8	2.4	100.0	45.5	51.1	459
Mother's education								
No education	75.4	7.6	15.9	1.0	100.0	23.6	27.7	1,987
Primary incomplete	40.7	15.9	42.6	0.9	100.0	47.2	50.1	359
Primary complete	20.5	21.4	55.0	3.1	100.0	53.6	57.2	119
Secondary+	19.0	25.8	51.6	3.6	100.0	51.4	52.8	115
Total	65.5	10.2	23.0	1.2	100.0	29.5	33.3	2,580

There is a positive relationship between mother's education and tetanus toxoid coverage. The proportion of births for which mothers received two or more tetanus toxoid vaccinations during pregnancy increases from 16 percent among women with no education to 43 percent among those who have primary incomplete; more than 50 percent of women with primary complete or higher education received at least two doses of tetanus toxoid. The proportion of births for which women did not receive any tetanus vaccinations during pregnancy decreases as the level of education increases. Educated women may have greater accessibility to modern medical care, or they may be better informed of the benefits of vaccination, or they may be better able to utilize the services provided.

Iron Tablets and Multiple Vitamin Tablets

Nationwide, mothers received iron tablets during pregnancy for 30 percent of births. They received multiple vitamin tablets for 33 percent of births. Women age 20-34 years are more likely to receive iron

tablets than younger or older women, and women with first births are more likely to receive iron tablets than those with higher order births. Iron supplementation was more common in the Central Zone (46 percent of births) and less common in the Southern Red Sea Zone (13 percent of births), while mothers received iron tablets during pregnancy for 23-29 percent of births in other zones. The differences by residence and education are also large. Urban mothers and mothers with some education are twice as likely to receive iron tablets as rural mothers and uneducated mothers. The patterns for receipt of multiple vitamin tablets are generally similar to those for receipt of iron tablets.

8.2 Medical Care at Delivery

Place of Delivery

Another important component of efforts to reduce the health risks of mothers and children is increasing the proportion of babies that are delivered in medical facilities. Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause the death or serious illness of either the mother or the baby. Respondents were asked to report the place of birth of all children born in the three years before the survey (see Table 8.4 and Figure 8.1).

Table 8.4 Place of delivery

Percent distribution of births in the three years preceding the survey by place of delivery, according to selected background characteristics, Eritrea 1995

Background characteristic	Place of delivery: Health facility	At home	Don't know/ Missing	Total	Number of births
Mother's age at birth					
< 20	19.1	80.9	0.0	100.0	417
20-34	18.2	81.5	0.4	100.0	1,622
35+	13.2	86.5	0.4	100.0	541
Birth order					
1	29.7	70.2	0.1	100.0	584
2-3	17.2	82.2	0.6	100.0	790
4-5	11.3	88.6	0.1	100.0	562
6+	11.4	88.3	0.3	100.0	644
Residence					
Urban	58.4	41.1	0.5	100.0	542
Asmara	76.0	23.2	0.8	100.0	287
Other towns	38.6	61.2	0.2	100.0	255
Rural	6.3	93.4	0.3	100.0	2,037
Zone					
Southern Red Sea	14.4	82.6	3.0	100.0	68
Northern Red Sea	8.5	91.4	0.1	100.0	341
Anseba	10.9	89.1	0.0	100.0	330
Gash-Barka	6.7	93.0	0.3	100.0	499
Southern	10.7	89.1	0.2	100.0	882
Central	52.9	46.6	0.5	100.0	459
Mother's education					
No education	6.7	93.0	0.3	100.0	1,987
Primary incomplete	40.5	58.9	0.6	100.0	359
Primary complete	59.8	40.2	0.0	100.0	119
Secondary+	83.2	16.8	0.0	100.0	115
Antenatal care visits					
None	3.0	97.0	0.0	100.0	1,308
1-3 visits	14.0	85.5	0.5	100.0	571
4 or more visits	47.5	52.4	0.1	100.0	686
Total	17.3	82.4	0.3	100.0	2,580

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

Only 17 percent of births in Eritrea are delivered in health facilities. Women age 35 years or older are slightly less likely than younger women to deliver in a health facility. Similarly, higher order births are less likely than first births to be delivered in health facilities. A child born in a rural area is more than twice as likely to have been delivered at home as an urban child. More than three-fourths of births in Asmara and 39 percent in other towns were delivered in health facilities, compared with only 6 percent of rural births. There is also a marked difference in place of delivery between the Central Zone and other zones. More than half of babies were delivered in health facilities in the Central Zone, compared with only 7-14 percent of births in other zones.

Mother's education has a strong relationship with the delivery in a health facility. The proportion of births delivered in a health facility increases from 7 percent among women with no education to 60 percent for mothers who have completed primary school, and increases further to 83 percent among women with secondary or higher education. Women who have visited a health professional during pregnancy are much more likely to deliver in a health facility than women who have had no such contact. Only 3 percent of women who did not receive any antenatal care delivered in a health facility, compared with 14 percent of women who had 1-3 visits and 48 percent of women who have had four or more antenatal care visits.

Assistance During Delivery

The type of assistance a woman receives during the birth of her child has important health consequences for both mother and child. Births that occur at health facilities are more likely to be assisted by trained medical personnel than births occurring at home. Table 8.5 shows that 21 percent of births were delivered under the supervision of a person with medical training, mostly nurses or trained midwives. Traditional birth attendants assisted in 54 percent of births, while relatives and friends provided the primary assistance in 24 percent of births. Two percent of births were delivered without any assistance at all (see Figure 8.1).

Maternal age and child's birth order are associated with type of assistance at delivery. Older women and women with high order births are less likely to be assisted at delivery by medically trained personnel than younger women (under age 35) and women with first births.

Urban women, especially women in Asmara, are much more likely than rural women to receive the benefits of medical supervision during delivery. The highest proportion of medically assisted births is in the Central Zone (57 percent) and the lowest proportion is in the Gash-Barka and Southern Zones (11 percent and 12 percent, respectively). Also notable is the high proportion of births—almost one-third—in the Anseba and Southern Zones that are assisted by relatives.

Maternal education is closely tied to better supervision at delivery. Women with some secondary education are nine times as likely to receive medical assistance at delivery and more than ten times as likely to receive assistance from a doctor as women who have no education.

Not surprisingly, the more antenatal visits a woman makes when pregnant, the greater the likelihood that her baby will be delivered with assistance from medically trained staff. Among births for which mothers received no antenatal care, only 5 percent were assisted by either doctors or nurses/midwives, compared with 17 percent of births for which mothers had 1-3 visits and more than half of births for which mothers who had 4 or more antenatal visits.

Table 8.5 Assistance during delivery

Percent distribution of births in the three years preceding 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	Total	Number of births
Mother's age at birth								
< 20	9.6	13.2	52.0	24.7	0.5	0.0	100.0	417
20-34	8.2	13.2	53.3	23.0	1.9	0.3	100.0	1,622
35+	5.6	10.8	56.6	24.8	2.1	0.1	100.0	541
Birth order								
1	14.8	18.1	46.3	19.9	0.7	0.1	100.0	584
2-3	7.0	12.9	54.7	23.7	1.2	0.3	100.0	790
4-5	5.7	8.5	58.8	24.6	2.1	0.3	100.0	562
6+	4.6	11.2	55.0	26.2	2.9	0.1	100.0	644
Residence								
Urban	26.9	36.5	26.4	9.6	0.2	0.4	100.0	542
Asmara	37.5	41.8	16.6	3.3	0.3	0.5	100.0	287
Other towns	15.0	30.4	37.4	16.7	0.2	0.2	100.0	255
Rural	2.9	6.4	61.1	27.4	2.1	0.2	100.0	2,037
Zone								
Southern Red Sea	1.5	21.3	68.0	6.9	0.0	2.2	100.0	68
Northern Red Sea	3.0	10.6	56.8	26.6	3.1	0.0	100.0	341
Anseba	2.1	12.0	54.3	29.9	1.7	0.0	100.0	330
Gash-Barka	3.0	8.1	62.9	21.9	3.8	0.3	100.0	499
Southern	5.8	6.2	55.7	31.3	1.0	0.0	100.0	882
Central	26.0	31.1	35.5	6.8	0.2	0.6	100.0	459
Mother's education								
No education	3.2	6.3	59.9	28.3	2.2	0.2	100.0	1,987
Primary incomplete	18.6	27.9	42.0	10.5	0.4	0.5	100.0	359
Primary complete	29.5	34.7	28.5	7.4	0.0	0.0	100.0	119
Secondary+	33.6	53.0	11.2	2.2	0.0	0.0	100.0	115
Antenatal care visits								
None	1.5	3.7	61.6	30.7	2.5	0.0	100.0	1,308
1-3 visits	6.0	11.1	57.7	23.7	1.6	0.0	100.0	571
4 or more visits	22.0	31.2	35.8	10.4	0.4	0.2	100.0	686
Total	7.9	12.7	53.8	23.7	1.7	0.2	100.0	2,580

Note: Total includes 17 births for which 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

8.3 Characteristics of Delivery

The EDHS collected information on some other aspects relating to the delivery of births, including the extent of caesarean section and premature deliveries. Questions on birth weight and the size of the baby at birth were included to estimate the proportion of low birth weight infants. Table 8.6 summarizes the data on the delivery characteristics of births in the three years before the survey.

According to mothers' reports, 2 percent of babies born in Eritrea were delivered by caesarean section. Caesarean sections (C-sections) were less common for rural births, second or higher order births, and births to mothers with no education. Nine percent of births in Asmara and 6 percent of births in the

Table 8.6 Delivery characteristics: caesarean section, birth weight and size

Among births in the three years preceding the survey, the percentage of deliveries by caesarean section, and the percent distribution by birth weight and by the mother's estimate of baby's size at birth, according to selected background characteristics, Eritrea 1995

		Birth weight			Size of child at birth					
Background characteristic	Delivery by C-section	Less than 2.5 kg	2.5 kg or more	Don't know	Very small	Smaller than average	Average or larger	Don't know	Total	Number of births
Mother's age at birth										
<20	1.2	2.9	11.6	85.5	19.8	11.9	67.4	0.9	100.0	417
20-34	1.7	1.9	12.7	85.4	16.8	10.2	70.1	2.8	100.0	1,622
35+	1.7	0.9	10.2	88.9	14.5	9.5	74.6	1.5	100.0	541
Birth order										
1	2.8	3.6	18.8	77.6	18.8	13.0	67.2	1.0	100.0	584
2-3	1.7	2.0	13.0	85.0	17.9	9.6	69.2	3.2	100.0	790
4-5	0.8	1.3	8.0	90.7	15.3	8.1	73.4	3.3	100.0	562
6+	1.1	0.8	8.0	91.2	15.1	10.7	72.9	1.3	100.0	644
Residence										
Urban	6.0	6.0	46.7	47.3	8.5	7.5	82.2	1.7	100.0	542
Asmara	8.9	8.7	62.5	28.8	6.4	6.9	85.2	1.5	100.0	287
Other towns	2.8	3.0	28.9	68.1	10.9	8.2	78.9	1.9	100.0	255
Rural	0.4	0.8	2.8	96.5	19.0	11.1	67.5	2.4	100.0	2,037
Zone										
Southern Red Sea	1.4	2.9	13.1	84.0	29.9	12.1	49.6	8.4	100.0	68
Northern Red Sea	0.3	0.6	5.0	94.4	25.6	10.5	62.6	1.2	100.0	341
Anseba	1.3	0.4	6.0	93.6	25.6	12.2	61.7	0.4	100.0	330
Gash-Barka	0.5	1.1	4.2	94.7	26.0	9.5	57.1	7.4	100.0	499
Southern	0.5	0.9	5.7	93.3	7.1	10.1	82.4	0.5	100.0	882
Central	6.0	6.4	41.9	51.8	10.8	9.9	78.1	1.2	100.0	459
Mother's education										
No education	0.6	0.6	3.6	95.8	18.0	10.6	68.9	2.4	100.0	1,987
Primary incomplete	3.5	4.7	28.3	67.0	15.9	7.0	75.2	1.9	100.0	359
Primary complete	7.2	5.0	49.7	45.4	9.2	15.3	73.6	1.9	100.0	119
Secondary+	7.6	11.6	68.1	20.3	6.3	10.4	82.6	0.6	100.0	115
Total	1.6	1.9	12.0	86.1	16.8	10.3	70.6	2.2	100.0	2,580

Central Zone—relatively high proportions of babies for Eritrea—were delivered by C-section, whereas in other towns, in rural areas and in other zones, at most 1 percent of babies were delivered by caesarean section.

Low birth weight has been shown to place babies at high risk of early infant death. In order to estimate the proportion of babies born with low birth weight, each respondent was asked if her baby had been weighed at birth, and if so, how much the baby weighed. In addition, mothers were asked for their assessment of the baby's size; whether the child was very large, larger than average, average size, smaller than average, or very small at birth. For 14 percent of births, a birth weight was reported. Among births for which a birth weight was reported, 14 percent (2 percent of all births) were reported to have a weight of less than 2.5 kilograms, which is considered low birth weight. More than 1 in 4 births (27 percent) were reported to be either small (10 percent) or very small (17 percent) and 71 percent of births were reported as average or large in size.

8.4 Childhood Vaccinations

In order to assist in the evaluation of the Expanded Program of Immunization (EPI), the EDHS collected information on vaccination coverage for children under three years of age. The EPI largely follows the World Health Organization (WHO) guidelines for vaccinating children. In order to be considered fully vaccinated, a child should receive one dose of BCG vaccine, three doses each of DPT and polio vaccine (excluding polio 0), and one dose of measles vaccine. BCG protects against tuberculosis and should be given at birth or first clinic contact; DPT protects against diphtheria, pertussis, and tetanus. DPT and polio require three vaccinations at approximately three, four, and five months of age; measles should be given at or soon after reaching nine months. WHO recommends that children receive the complete schedule of vaccinations before 12 months of age.

Information on vaccination coverage was collected in two ways: from child vaccination cards shown to the interviewer and from mothers' verbal reports. The majority of health centers and clinics in Eritrea provide cards on which vaccinations are recorded. If a mother was able to present such a card to the interviewer, this was used as the source of information, with the interviewer recording vaccination dates directly from the card. In addition to collecting vaccination information from cards, there were two ways of collecting the information from the mother herself. If a vaccination card had been presented, but a vaccine had not been recorded on the card as being given, the mother was asked to recall whether or not that particular vaccine had been given. If the mother was not able to provide a card for the child at all, she was asked to recall whether or not the child had received BCG, polio and DPT (including the number of doses for each), and measles vaccinations.

Vaccination Coverage

Information on vaccination coverage is presented in Table 8.7, according to the source of information used to determine coverage, i.e., the child vaccination card or mother's report. Data are presented for children age 12-23 months, thereby including only children who should be fully vaccinated. For example, half of children had a BCG vaccination recorded on their available card and 11 percent were reported by their mothers to have been vaccinated although they did not show the interviewer a vaccination card. Thus, overall, 61 percent of children age 12-23 months are estimated to have been vaccinated against tuberculosis.

Table 8.7 Vaccinations by source of information

Percentage of children 12-23 months who had received specific vaccines at any time before the survey, by source of information about vaccination, and the percentage vaccinated by 12 months of age, Eritrea 1995

Background characteristic	Percentage of children who received:											Number of children
	BCG	DPT1	DPT2	DPT3	Polio0[1]	Polio1	Polio2	Polio3	Measles	All[2]	None	
Vaccinated at any time before the survey												
Vaccination card	50.1	49.9	46.3	41.8	17.9	50.3	46.8	41.0	42.3	36.4	0.0	365
Mother's report	10.6	10.9	9.0	7.0	1.2	10.3	9.1	6.7	8.7	5.0	37.7	360
Either source	60.7	60.9	55.3	48.8	19.1	60.6	55.9	47.7	51.0	41.4	37.7	725
Vaccinated by 12 months of age	54.3	54.8	49.1	42.0	19.1	53.9	49.3	41.2	35.5	29.8	44.3	725

Note: For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.
[1] Polio 0 is given at birth.
[2] Children who are fully vaccinated (i.e., those who have received BCG, measles and three doses of DPT and polio (excluding polio 0)).

According to information from both the vaccination records and mothers' recall, 61 percent of children have received the first dose of DPT (DPT1) and polio (polio1). Coverage declines for subsequent doses and only 48 percent of children have received the third dose of DPT and polio. Thus, one-fifth of children who received the first dose did not receive the third dose of DPT and polio. Given the recent introduction of an additional dose of polio (polio 0) to the recommended schedule of childhood vaccinations, only 19 percent of children have received it. The coverage rate for measles is 51 percent. Overall, 41 percent of children 12-23 months are fully vaccinated and 38 percent have not been vaccinated at all. It can also be noted that only 30 percent of children are fully vaccinated by 12 months of age.

Differentials in Vaccination Coverage

Table 8.8 presents vaccination coverage rates among children age 12-23 months by selected background characteristics. The table also includes information on the percentage of children for whom a vaccination card was shown to the interviewer. The vaccine coverage figures are based on information from both the vaccination records and mother's reports and are for vaccines received any time up to the date of the survey. Figure 8.2 shows vaccination coverage by selected background characteristics.

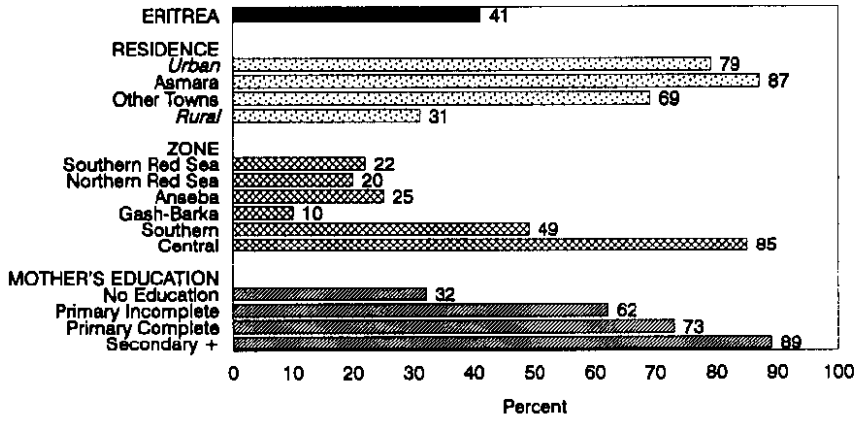
Table 8.8 Vaccinations by background characteristics

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 characteristic	Percentage of children who received:											Percentage with a card	Number of children
	BCG	DPT1	DPT2	DPT3	Polio0[1]	Polio1	Polio2	Polio3	Measles	All[2]	None		
Child's sex													
Male	61.5	61.7	55.2	48.9	21.2	61.3	55.6	46.7	52.4	41.6	37.0	50.3	371
Female	59.8	60.0	55.5	48.7	16.9	59.8	56.2	48.7	49.5	41.2	38.5	50.4	354
Birth order													
1	67.9	67.0	60.5	58.3	30.3	67.0	61.5	55.1	54.4	48.7	31.4	53.4	163
2-3	62.1	62.4	57.2	49.1	19.9	62.2	56.8	48.4	55.2	43.9	35.8	54.9	213
4-5	54.8	55.6	48.6	38.8	11.4	55.0	50.0	39.4	43.5	30.9	42.8	44.8	168
6+	57.9	58.3	54.7	49.2	15.3	58.1	55.1	47.7	50.0	41.6	41.1	47.4	180
Residence													
Urban	94.7	94.4	91.3	87.1	55.3	94.7	92.3	84.5	87.0	79.0	3.9	80.1	161
Asmara	97.5	98.3	95.8	91.6	78.2	98.3	97.5	91.6	93.3	87.4	0.8	89.1	87
Other towns	91.5	89.7	86.1	81.8	28.4	90.5	86.1	76.1	79.5	69.1	7.5	69.4	74
Rural	51.0	51.3	45.1	37.9	8.8	50.8	45.5	37.1	40.7	30.6	47.4	41.8	564
Zone													
Southern Red Sea	(21.7)	(21.7)	(21.7)	(21.7)	(17.9)	(21.7)	(21.7)	(21.7)	(21.7)	(21.7)	(78.3)	(17.9)	14
Northern Red Sea	32.0	31.8	27.6	23.7	7.1	30.3	28.8	24.2	27.8	20.2	65.7	15.8	103
Anseba	59.5	56.4	44.0	36.4	20.5	58.7	46.3	25.3	53.5	24.5	40.5	51.5	82
Gash-Barka	30.1	30.4	21.4	15.3	3.9	31.7	23.0	16.3	19.7	10.3	67.9	22.5	137
Southern	71.0	72.2	68.6	59.7	12.9	71.0	67.4	59.3	55.9	49.0	27.0	58.8	248
Central	97.7	98.2	95.1	90.2	52.9	97.4	96.2	90.2	91.3	85.3	1.3	90.2	141
Mother's education													
No education	50.8	51.1	45.2	38.5	10.6	51.0	46.0	37.7	41.9	32.3	47.4	42.4	550
Primary incomplete	91.7	90.7	84.6	75.9	35.6	89.2	83.0	73.3	74.9	62.2	8.3	73.4	103
Primary complete	(88.6)	(90.9)	(90.9)	(86.4)	(53.5)	(90.9)	(90.9)	(80.8)	(77.0)	(72.6)	(9.1)	(75.3)	33
Secondary+	(94.6)	(94.6)	(90.8)	(90.8)	(66.4)	(94.6)	(94.6)	(92.7)	(94.6)	(88.9)	(3.5)	(79.7)	39
Total	60.7	60.9	55.3	48.8	19.1	60.6	55.9	47.7	51.0	41.4	37.7	50.3	725

Note: Figures in parentheses are based on 25 to 49 children.
[1] Polio 0 is given at birth.
[2] Children who are fully vaccinated (i.e., those who have received BCG, measles, and three doses of DPT and polio (excluding polio 0))

Figure 8.2
Percentage of Children Age 12-23 Months Who Have Received All Vaccinations by Background Characteristics



Note: Based on vaccination cards and mothers' reports.

EDHS 1995

The data indicate that male and female children have almost an equal chance of getting vaccinated. First births are more likely than children of higher birth order to receive the basic childhood immunizations. Children in urban areas have higher coverage rates—87 percent in Asmara and 69 percent in other towns are fully vaccinated—than rural children (31 percent).

Almost half of children 12-23 months old in the Southern Zone and 85 percent of those in the Central Zone have been fully immunized. All other zones, however, lag far behind in immunization coverage. In the Gash-Barka Zone, only 10 percent of children are fully immunized, while coverage in the remaining zones ranges from 20 to 25 percent. Complete coverage increases dramatically with increasing maternal education, from 32 percent among children whose mothers have no education to 62-73 percent among children whose mothers have primary schooling to 89 percent among children whose mothers have some secondary education.

Trends in Vaccination Coverage

Table 8.9 shows the proportion of children one year and two years of age who had received various childhood vaccinations by 12 months of age. Table 8.9 also shows the proportion of children age 12-35 months for whom a vaccination card was seen by the interviewer. Overall, vaccination cards were seen for 45 percent of the children. The percentage of children for whom a vaccination card was seen is higher among younger children than older children (50 percent in the younger cohort and 41 percent in the older cohort).

The higher proportions of children age 12-23 than children 24-35 receiving each vaccination as well as all vaccinations and the lower dropout rate[1] from first dose of DPT to third dose of DPT among younger

[1] Dropout rate = [(Dose 1 - Dose 3) / Dose 1] multiplied by 100

Table 8.9 Vaccinations in first year of life by current age

Among children one year and two years old, the percentage with a vaccination card and the percentage who had received each vaccine before their first birthday, according to current age of the child, Eritrea 1995

Vaccine	Current age of child in months		All children 12-35 months
	12-23	24-35	
Vaccination card seen by interviewer	50.3	40.5	45.1
Percentage vaccinated at 0-11 months[1]			
BCG	54.3	41.6	47.6
DPT 1	54.8	42.0	48.0
DPT 2	49.1	36.0	42.2
DPT 3	42.0	29.8	35.5
Polio 0[2]	19.1	13.1	15.9
Polio 1	53.9	41.5	47.3
Polio 2	49.3	34.8	41.6
Polio 3	41.2	27.9	34.1
Measles	35.5	23.0	28.9
All vaccinations[3]	29.8	18.7	23.9
No vaccinations	44.3	56.8	50.9
Number of children	725	821	1,546

[1] Information was obtained either from a vaccination card or from the mother if there was no written record. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as that for children with a written vaccination record.
[2] Polio 0 is given at birth.
[3] Children who have received BCG, measles, and three doses each of DPT and polio vaccines (excluding polio 0)

children indicate an improvement in the vaccination program. For example, the proportion of children who were fully immunized by their first birthday rose from 19 percent among those age 24-35 months to 30 percent for those age 12-23 months at the time of the survey. At the same time, the dropout rate between DPT1 and DPT3 decreased from 29 percent for older children to 23 percent for younger children.

8.5 Acute Respiratory Infection

Three illnesses that are of major importance for infant and child survival in Eritrea are discussed in this section. They are acute respiratory infection, fever, and diarrhea. Estimates of the prevalence of each illness, as well as data concerning types of treatment, are presented.

Acute respiratory infection (ARI) is one of the major causes of illness and death among children in Eritrea. Common symptoms associated with severe respiratory infection include fever, cough, and difficult or rapid breathing. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths from respiratory infections.

The prevalence of ARI was estimated by asking mothers if their children under age three had been ill with coughing accompanied by short, rapid breathing, in the two weeks preceding the survey. These symptoms are compatible with pneumonia. It should be borne in mind that morbidity data collected in surveys are subjective—i.e., dependent on the mother's perception of illness—and not validated by medical personnel.

Table 8.10 indicates that 23 percent of children under three years of age were ill with a cough and short, rapid breathing in the two weeks preceding the survey. Prevalence of respiratory illness varies by age of the child; it is low for children under 6 months, peaks at 6-11 months, and then falling slowly at 24-35

Table 8.10 Prevalence and treatment of acute respiratory infection and prevalence of fever

Percentage of children under three years who were ill with a cough accompanied by short, rapid breathing (acute respiratory infection) during the two weeks preceding the survey, the percentage of ill children who were taken to a health facility, and the percentage of children with fever during the two weeks preceding the survey, by selected background characteristics, Eritrea 1995

Background characteristic	Percentage of children with cough and rapid breathing	Percentage of children with cough and rapid breathing who were taken to a health facility or provider[1]	Percentage of children with a fever	Number of children
Child's age				
< 6 months	18.1	14.7	27.0	448
6-11 months	29.1	40.1	53.8	430
12-23 months	25.9	47.6	45.0	725
24-35 months	19.8	33.9	40.0	821
Child's sex				
Male	22.4	39.3	40.8	1,242
Female	23.6	34.9	42.2	1,182
Birth order				
1	26.2	37.5	42.2	535
2-3	19.5	35.7	39.5	745
4-5	24.7	34.8	38.7	539
6+	22.9	40.3	46.0	605
Residence				
Urban	19.8	59.0	33.8	500
Asmara	16.8	55.7	25.5	266
Other towns	23.4	61.6	43.3	233
Rural	23.8	32.4	43.5	1,925
Zone				
Southern Red Sea	33.8	(26.1)	56.7	59
Northern Red Sea	21.4	37.2	44.0	317
Anseba	20.7	34.6	39.6	314
Gash-Barka	29.3	32.6	49.9	461
Southern	20.9	33.4	41.0	841
Central	21.5	54.5	30.9	432
Mother's education				
No education	23.7	31.6	43.5	1,868
Primary incomplete	21.3	58.1	37.6	338
Primary complete	20.2	(60.4)	33.2	111
Secondary+	19.0	(56.3)	27.1	107
Total	23.0	37.1	41.5	2,424

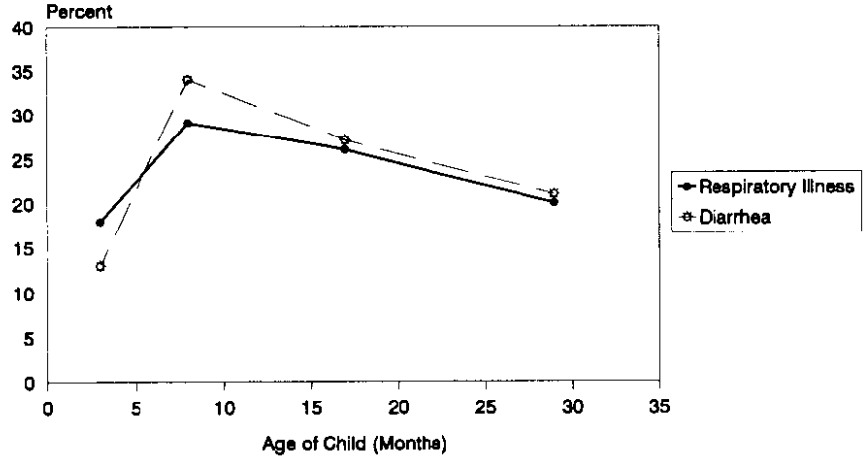
Note: Figures in parentheses are based on 25 to 49 ill children.
[1] Includes health center, hospital, clinic, and private doctor

months (see Figure 8.3). ARI affects male and female children equally. There is no clear relationship between ARI prevalence and birth order except that first births are most likely and second and third births are least likely to be ill with ARI.

Children in rural areas and other towns are more likely than children in Asmara to have been ill with ARI in the two weeks before the survey. Higher prevalence is observed in the Southern Red Sea and Gash-Barka Zones (34 percent and 29 percent, respectively) than in other zones (around 21 percent). The EDHS data show that children of women with secondary and higher education are less likely to be ill with ARI than children of women with no education. Whether differences in apparent ARI prevalence reflect genuine differences in morbidity or are due to differences in perceptions of disease or disease severity cannot be ascertained from these data.

Thirty-seven percent of children with respiratory illness were taken to a health facility. The youngest children (under six months) have the lowest rate of health facility use for this illness. Urban children and children of educated mothers are much more likely to be taken to health services when they have ARI than their rural counterparts and those whose mothers have no education.

Figure 8.3
Prevalence of Respiratory Illness and Diarrhea in the Two Weeks Preceding Survey by Age of Child



EDHS 1995

8.6 Fever

Malaria is endemic throughout most of Eritrea. Since the major manifestation of malaria is fever, mothers were asked whether their children under age three had a fever in the two weeks preceding the survey.

Column 3 of Table 8.10 shows that 42 percent of children under three years of age were reported to have had fever in the two weeks prior to the survey. As with respiratory illness, prevalence of fever peaks at 6-11 months (54 percent). Differentials by sex of the child are negligible and children of birth order six

or higher are more likely to have had fever. Urban-rural, zonal, and maternal education-related differences are substantial and roughly parallel those already described regarding ARI prevalence.

8.7 Diarrhea

Dehydration caused by severe diarrhea is a major cause of illness and death among young children. A simple and effective response to a child's dehydration is a prompt increase in fluid intake, i.e., oral rehydration therapy (ORT). In Eritrea, a solution prepared from oral rehydration packets (maichow) or a homemade solution prepared from sugar, salt, and water is recommended to combat dehydrating diarrhea. The oral rehydration packets are available at health institutions and pharmacies in Eritrea.

In the EDHS, women who had a birth in the last three years were asked questions regarding the prevalence of diarrhea among their children under age three, their knowledge of ORS packets, and treatment of diarrhea in general. For all children experiencing diarrhea in the last two weeks, mothers were asked whether there was blood in the stools, whether fluid and food intake were increased or decreased, whether the child was given a sugar-salt-water solution, and if anything else was given to the child in response to the diarrhea.

Table 8.11 Prevalence of diarrhea

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

Background characteristic	Diarrhea in the preceding 2 weeks: All diarrhea	Diarrhea in the preceding 2 weeks: Diarrhea with blood	Number of children
Child's age			
< 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
Child's sex			
Male	22.7	5.4	1,242
Female	24.5	7.0	1,182
Birth order			
1	20.6	5.1	535
2-3	21.6	5.7	745
4-5	25.3	9.3	539
6+	27.1	5.1	605
Residence			
Urban	17.8	2.1	500
Asmara	15.9	1.1	266
Other towns	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

Prevalence of Diarrhea

Table 8.11 presents the prevalence of diarrhea in children under three years of age. Twenty-four percent of children had experienced diarrhea at some time in the two weeks preceding the survey; 6 percent of children had bloody diarrhea. Diarrheal prevalence is low among children under six months when most children are generally breastfed and is highest among children 6-11 months (see Figure 8.3). A similar pattern is observed regarding bloody diarrhea except that prevalence levels off at around 7 percent for children who are 12-35 months old.

Diarrhea prevalence varies little by child's sex but shows a positive relationship with birth order. One-quarter of rural children had diarrhea, compared with 18 percent of urban children. Rural children are also more likely to have bloody diarrhea than their urban counterparts. Among zones, prevalence is highest in the Southern Red Sea Zone (39 percent) and lowest in the Anseba Zone (15 percent). Children whose mothers have some education are less commonly sick with diarrhea and much less sick with bloody diarrhea than children whose mothers are uneducated.

Knowledge of Diarrhea Care

In order to ascertain how widespread knowledge of ORS is in Eritrea, the EDHS included a question for women who had a birth in the three years preceding the survey.

Almost two-thirds (64 percent) of women with recent births have heard of oral rehydration salt (ORS) packets (see Table 8.12). When asked about specific eating and drinking regimes for children ill with diarrhea, a substantial proportion had incorrect information; 36 percent said that a child who is sick with diarrhea should get less to drink than usual although 49 percent of women recommended giving more fluids than before the illness. Fifty-seven percent said children with diarrhea should get less to eat. Women who are more educated, and those living in urban areas and the Central Zone tend to be more knowledgeable about appropriate feeding and drinking practices for children with diarrhea.

Table 8.12 Knowledge of diarrhea care

Percentage of women with births in the three years preceding the survey who know about oral rehydration packets (maichow) for treatment of diarrhea and the percent distribution of women by their opinions about appropriate feeding practices during diarrhea, according to selected background characteristics, Eritrea 1995

Background characteristic	Know about oral rehydration packets for treatment of diarrhea	Women's opinions about appropriate feeding practices during diarrhea (compared with usual feeding practices): Liquids				Solid foods				Total	Number of women
		Less	Same	More	Don't know/ Missing	Less	Same	More	Don't know/ Missing		
Age											
15-19	60.6	36.4	14.5	46.0	3.2	56.4	18.6	21.5	3.4	100.0	201
20-24	62.5	31.1	16.9	51.6	0.4	52.1	20.7	26.4	0.8	100.0	459
25-29	64.8	34.0	13.2	52.1	0.7	60.1	16.7	22.6	0.7	100.0	516
30-34	64.5	37.1	15.9	45.4	1.6	57.5	18.1	23.1	1.4	100.0	400
35+	64.4	38.9	11.0	48.2	1.8	57.5	18.1	23.1	1.3	100.0	627
Residence											
Urban	76.5	27.9	9.1	62.0	0.9	49.4	14.2	35.4	1.0	100.0	462
Asmara	72.9	23.2	8.3	67.3	1.2	44.6	15.8	38.1	1.5	100.0	246
Other towns	80.6	33.2	10.1	56.1	0.7	54.8	12.5	32.2	0.5	100.0	216
Rural	60.4	37.6	15.2	45.7	1.5	58.9	19.4	20.4	1.3	100.0	1,740
Zone											
Southern Red Sea	73.5	76.3	3.8	19.9	0.0	84.2	7.6	8.2	0.0	100.0	54
Northern Red Sea	58.5	40.0	10.3	45.4	4.4	72.6	8.4	15.7	3.2	100.0	289
Anseba	18.3	27.9	10.3	60.6	1.3	75.7	6.8	16.2	1.3	100.0	280
Gash-Barka	60.1	51.2	18.0	28.6	2.3	58.8	22.5	17.1	1.6	100.0	429
Southern	81.6	32.4	17.5	50.2	0.0	45.1	26.0	28.4	0.4	100.0	755
Central	68.4	21.3	9.6	68.1	1.0	48.6	16.1	34.1	1.2	100.0	395
Education											
No education	60.4	39.1	14.6	44.7	1.5	60.4	18.7	19.6	1.4	100.0	1,698
Primary incomplete	75.3	23.4	13.3	63.1	0.2	49.0	15.1	35.7	0.2	100.0	301
Primary complete	76.7	29.2	9.9	59.2	1.8	40.2	24.1	33.9	1.8	100.0	103
Secondary+	73.3	18.4	8.4	71.7	1.5	38.5	16.6	42.8	2.2	100.0	100
Total	63.8	35.6	14.0	49.1	1.4	56.9	18.3	23.5	1.3	100.0	2,202

Treatment of Diarrhea

Table 8.13 shows treatment of recent episodes of diarrhea among children under three years, as reported by the mother. The EDHS indicates that 28 percent of children with diarrhea in the last two weeks were taken to a health facility for treatment; children 12-23 months old, first births, and children of more educated women were more likely to be taken to a facility.

Table 8.13 Treatment of diarrhea

Among children under three years who had diarrhea in the two weeks preceding the survey, the percentage taken for treatment to a health facility or provider, the percentage who received oral rehydration therapy (ORT), the percentage who received neither oral rehydration salts (ORS) nor recommended home fluids (RHF) nor increased fluids, and the percentage who received other treatments, according to selected background characteristics, Eritrea 1995

Background characteristic	Percentage taken to a health facility or provider[1]	Oral rehydration therapy			Percentage receiving increased fluids	Percentage receiving neither ORS nor RHF nor increased fluids	Other treatments			Missing	Number of children
		ORS packet	RHF at home[2]	Either ORS or RHF			Injection	Home remedy/ Other	No treatment		
Child's age											
< 6 months	(9.7)	(11.7)	(12.7)	(21.1)	(22.1)	(64.2)	(0.0)	(13.9)	(56.2)	(0.0)	56
6-11 months	27.4	31.5	7.9	34.3	32.9	45.5	7.3	33.8	36.2	0.6	147
12-23 months	40.0	45.8	14.9	50.5	40.4	35.3	3.5	44.2	30.3	0.0	196
24-35 months	22.2	26.0	8.8	31.0	39.6	44.9	1.6	34.6	34.9	0.0	172
Child's sex											
Male	27.6	33.0	13.7	37.9	35.5	46.2	2.2	35.2	37.7	0.0	281
Female	29.2	32.6	8.5	37.2	37.3	41.2	5.0	36.1	33.9	0.3	290
Birth order											
1	34.0	42.3	19.3	48.3	30.0	40.7	4.6	37.7	37.6	0.0	110
2-3	21.8	25.9	8.7	31.1	38.2	47.0	1.3	36.6	37.1	0.0	161
4-5	25.7	31.1	10.1	36.1	36.8	46.1	5.2	32.1	41.1	0.0	136
6+	33.4	34.6	8.5	38.0	38.7	40.3	3.8	36.4	28.7	0.6	164
Residence											
Urban	54.8	68.2	13.2	70.9	46.4	17.9	4.6	61.9	10.5	0.0	89
Asmara	51.7	74.1	15.5	75.9	48.3	17.2	3.4	60.3	8.6	0.0	42
Other towns	57.6	62.7	11.1	66.3	44.6	18.6	5.6	63.4	12.3	0.0	46
Rural	23.5	26.3	10.6	31.4	34.6	48.4	3.4	30.8	40.4	0.2	483
Zone											
Southern Red Sea	(24.9)	(40.7)	(18.3)	(45.3)	(18.3)	(50.1)	(0.0)	(49.7)	(29.7)	(0.0)	23
Northern Red Sea	40.8	40.6	7.8	42.8	34.6	45.3	7.0	50.6	35.7	1.2	74
Anseba	(18.8)	(26.8)	(6.9)	(26.8)	(20.0)	(63.8)	(1.4)	(23.4)	(50.1)	(0.0)	47
Gash-Barka	25.8	26.7	20.7	38.0	40.5	35.9	3.0	32.6	32.3	0.0	137
Southern	22.5	25.3	4.8	28.5	36.8	49.6	4.1	30.1	41.8	0.0	220
Central	46.5	61.5	15.5	64.1	45.9	22.6	2.1	47.1	15.9	0.0	70
Mother's education											
No education	25.2	27.6	10.8	33.3	35.0	47.1	4.2	32.6	38.8	0.2	475
Primary incomplete	43.9	53.4	12.0	53.4	39.4	35.0	1.2	53.4	26.2	0.0	59
Primary complete	(38.8)	(63.6)	(4.4)	(63.6)	(52.1)	(17.2)	(0.0)	(43.7)	(17.2)	(0.0)	21
Total	28.4	32.8	11.0	37.6	36.4	43.6	3.6	35.7	35.7	0.2	571

Note: Total includes 18 children whose mothers had secondary or higher education. Figures in parentheses are based on 25 to 49 children who had diarrhea.
[1] Includes health center, hospital, clinic, and private doctor
[2] Homemade sugar-salt-water solution

Among children with diarrhea, one-third were given a fluid prepared from ORS packets, 11 percent received a recommended home fluid (RHF) prepared from sugar, salt and water, and 38 percent were given either ORS or RHF. However, mothers reported giving only 36 percent of ill children more to drink than before the diarrhea. Overall, 44 percent of children were given neither ORS nor RHF nor increased fluids, placing this group at greater risk of dying. Very few children with diarrhea (4 percent) were given antibiotic injections, and 36 percent were provided some sort of home-based traditional remedies, predominantly herbal medicines. Thirty-six percent of children did not receive any treatment for their diarrhea.

Therapeutic intervention shows no pattern by age or birth order, but children under six months are least likely to receive treatment and children 12-23 months and children of sixth and higher birth order are more likely to get treatment or increased fluids. For example, increased fluid intake increases from 22 percent among children under six months to 40 percent among children 12-23 and 24-35 months. Children of educated women are also more likely to be treated.

Table 8.14 indicates that 70 percent of children ill with diarrhea were given *less* food during the illness, and 48 percent received *less* to drink than they did before the illness. These patterns reflect a lack of practical knowledge among some mothers regarding the appropriate feeding practices for children during episodes of diarrheal illness.

Table 8.14 Feeding practices during diarrhea

Percent distribution of children under three years who had diarrhea in the past two weeks by amount of solid foods given and amount of fluids given, Eritrea 1995

Feeding practice	Total
Amount of solid foods given	
Same	16.8
More	9.1
Less	69.6
Don't know/missing	4.6
Total	100.0
Amount of fluids given	
Same	14.6
More	36.4
Less	47.7
Don't know/missing	1.3
Total	100.0
Number of children	571

CHAPTER 9

MATERNAL AND CHILD NUTRITION

The EDHS collected data from mothers regarding the feeding patterns of all of their children under three years of age. In this chapter, the data are used to evaluate infant feeding practices, including breastfeeding, introduction of complementary and supplementary weaning foods, and use of feeding bottles. As part of the survey, the heights and weights of all children under three and their mothers were measured, allowing a cross-sectional assessment of maternal and child nutritional status.

9.1 Breastfeeding and Complementary Foods

The pattern of infant feeding has important influences on both the child and the mother. Feeding practices are among the principal determinants of a child's nutritional status. Poor nutritional status in young children exposes them to greater risk of illness and death. Breastfeeding affects mothers through the biological suppression of the return to fertile status, thereby affecting the length of the inter-birth interval and pregnancy outcome. These effects are influenced by both the duration and frequency of breastfeeding, and by the age at which the child receives foods and liquids to complement breast milk.

Prevalence and Initiation of Breastfeeding

The initiation of breastfeeding immediately after childbirth is important because it benefits both the mother and the infant. As soon as the infant starts suckling at the breast, the hormone oxytocin is released in the mothers, resulting in uterine contractions that facilitate the expulsion of the placenta and reduce the risk of postpartum haemorrhage. Breast milk is sufficient for newborn infants; it is not necessary to give them anything else. When the neonate is given anything else, contaminants may cause infection, leading to diarrhea. It is also recommended that the first breast milk should be given to the child because it contains colostrum, which provides natural immunity to the child.

Table 9.1 shows that breastfeeding is nearly universal in Eritrea with 98 percent of children born in the last three years having been breastfed at some time.[1] This is not surprising since breast milk has traditionally been the main source of nutrition for infants and young children in Eritrea. The practice of breastfeeding is high in all population subgroups, ranging from 94 to 99 percent. Overall, 48 percent of children were breastfed within an hour of birth and 69 percent in the first 24 hours after delivery. There is virtually no difference in the timing of initiation of breastfeeding by sex of the child, but urban-rural differences are substantial. Breastfeeding started within one hour of birth for 57 percent of babies in urban areas but for only 46 percent in rural areas. Early initiation of breastfeeding is highest in the Anseba Zone (84 percent), lowest in the Southern Zone (29 percent), and intermediate in the remaining four zones (42 to 54 percent). Children are less likely to receive early breastfeeding if their mothers are not educated, if the delivery was assisted by a traditional midwife, or if they were delivered at home.

[1] The remaining 2 percent are comprised, in large part, of children who died during the neonatal period and were probably unable to breastfeed.

Table 9.1 Initial breastfeeding

Percentage of children born in the three years preceding the survey who were ever breastfed, and the percentage who started breastfeeding within one hour of birth and within one day of birth, by selected background characteristics, Eritrea 1995

Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding: Within one hour of birth	Within one day of birth[1]	Number of children
Child's sex				
Male	98.6	47.9	71.6	1,333
Female	98.2	48.6	66.5	1,246
Residence				
Urban	97.2	57.2	80.3	542
Asmara	96.2	54.6	76.9	287
Other towns	98.4	60.0	84.0	255
Rural	98.7	45.9	66.2	2,037
Zone				
Southern Red Sea	93.9	41.9	54.0	68
Northern Red Sea	98.6	50.3	72.5	341
Anseba	99.5	84.0	92.6	330
Gash-Barka	98.4	52.9	77.4	499
Southern	99.2	28.9	52.9	882
Central	96.4	54.2	74.4	459
Mother's education				
No education	98.6	47.4	67.5	1,987
Primary incomplete	98.0	50.3	75.5	359
Primary complete	98.1	53.8	75.0	119
Secondary+	95.6	50.8	72.2	115
Assistance at delivery				
Health professional	97.1	53.8	77.8	532
Traditional midwife	98.1	44.5	68.1	1,387
Other or none	99.9	51.9	64.9	655
Place of delivery				
Health facility	96.9	56.5	77.5	446
At home	98.7	46.6	67.5	2,126
Total	98.4	48.3	69.1	2,580

Note: Total includes 7 children for whom data on assistance at delivery are missing and 10 children for whom information on place of delivery is missing.
[1] Includes children who started breastfeeding within one hour of birth

Age Pattern of Breastfeeding and Introduction of Complementary Foods

Breast milk contains all the nutrients needed by children in the first six months of life and is an uncontaminated nutritional source. Complementing breast milk before four months of age is unnecessary and is indeed discouraged since the likelihood of contamination and the resulting risk of diarrhea disease are high. Early supplementation also reduces breast milk output, since the production and release of milk is modulated by the frequency and intensity of suckling.

Table 9.2 presents breastfeeding practices from birth until the third birthday. At 10-11 months of age, 96 percent of infants are still breastfed; even by 16-17 months, 85 percent are being breastfed. By 26-27 months of age, however, only 26 percent of children are still receiving some breast milk, and by the end of the third year 84 percent of the children have been completely weaned.

The feeding of complementary liquids and foods in addition to breast milk starts early in Eritrea. Although exclusive breastfeeding[2] is recommended, during the first three months of life, only 65 percent of children receive nothing but breast milk. About 14 percent are given plain water in addition to breast milk, and 21 percent receive other foods and liquids in addition to breast milk. By 4-6 months, exclusive breastfeeding has declined to 40 percent. By 10-11 months, when infants should be receiving complementary foods, 6 percent are still being exclusively breastfed and 7 percent are being breastfed and receiving plain water only.

Table 9.2 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	Total	Number of living children
<2	0.0	75.5	10.8	13.8	100.0	140
2-3	0.4	56.6	15.7	27.3	100.0	173
4-5	0.5	45.0	25.2	29.3	100.0	135
6-7	1.2	21.0	20.4	57.4	100.0	149
8-9	0.0	9.8	15.0	75.2	100.0	143
10-11	4.0	6.3	6.7	83.1	100.0	138
12-13	7.4	3.2	3.3	86.2	100.0	134
14-15	8.2	0.0	1.5	90.4	100.0	134
16-17	14.9	0.9	2.2	82.0	100.0	126
18-19	21.3	0.0	1.4	77.2	100.0	133
20-21	32.7	0.5	1.3	65.5	100.0	103
22-23	46.5	0.0	1.0	52.5	100.0	93
24-25	67.6	0.0	1.4	31.0	100.0	144
26-27	73.9	0.0	0.5	25.6	100.0	132
28-29	78.9	0.0	0.0	21.1	100.0	141
30-31	82.5	0.0	0.0	17.5	100.0	170
32-33	83.7	0.0	0.0	16.3	100.0	132
34-35	83.8	0.0	0.0	16.2	100.0	103
0-3 months	0.2	65.0	13.5	21.2	100.0	313
4-6 months	1.2	40.2	23.2	35.5	100.0	214
7-9 months	0.0	9.5	17.0	73.6	100.0	213

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

[2] *Exclusive breastfeeding* is the practice of feeding with breast milk only, as recommended by the World Health Organization, for the first 4-6 months of life.

Table 9.3 indicates that the duration and frequency of breastfeeding vary by background characteristics of the child and the mother. At the national level, the median duration of any breastfeeding is 22 months. The median duration of exclusive breastfeeding is three months and the median duration of full breastfeeding (breastfeeding plus plain water only) is six months. The median length of any breastfeeding tends to be longer in rural areas (23 months) than in Asmara (19 months) or other towns (20 months), and amongst uneducated women (23 months) compared with women who have completed primary education (19 months) or have some secondary education (17 months). Breastfeeding duration is shortest in the Southern Red Sea Zone (15 months) and varies between 20 months and 23 months in other zones.

Table 9.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and full breastfeeding among children under three years of age, and the percentage of children under six months of age who were breastfed six or more times in the 24 hours preceding the interview, according to background characteristics, Eritrea 1995

Background characteristic	Median duration of breastfeeding[1]			Number of children under 3 years of age	Children under six months	
	Any breast-feeding	Exclusive breast-feeding	Full breast-feeding[2]		Breastfed 6 or more times in preceding 24 hours	Number of children
Child's sex						
Male	21.6	3.4	5.6	1,333	96.2	246
Female	22.7	3.3	5.8	1,246	93.8	203
Residence						
Urban	19.7	3.6	4.7	542	92.5	84
Asmara	19.1	(3.1)	(3.8)	287	86.8	39
Other towns	20.4	(4.0)	(5.2)	255	97.3	46
Rural	22.5	3.3	6.2	2,037	95.7	364
Zone						
Southern Red Sea	14.8	*	*	68	*	12
Northern Red Sea	22.0	4.2	5.8	341	94.5	55
Anseba	21.3	4.9	6.6	330	100.0	69
Gash-Barka	22.2	(0.7)	4.9	499	88.7	82
Southern	23.2	3.7	6.7	882	98.1	160
Central	20.4	4.0	4.9	459	91.1	70
Mother's education						
No education	22.6	3.3	6.3	1,987	95.7	347
Primary incomplete	21.0	3.8	5.0	359	95.2	60
Primary complete	19.2	*	*	119	(91.8)	26
Secondary+	17.0	*	*	115	*	16
Assistance at delivery						
Health professional	19.6	2.7	4.6	532	92.2	87
Traditional midwife	22.3	3.3	6.0	1,387	94.8	248
Other or none	23.2	3.7	6.4	655	98.1	114
Total	22.0	3.3	5.7	2,580	95.1	448
Mean	22.8	4.7	6.7	-	-	-
Prevalence/Incidence mean	22.4	4.5	6.6	-	-	-

Note: Total includes 7 children for whom data on assistance at delivery are missing.
Figures in parentheses are based on 25 to 49 children; an asterisk indicates that a figure is based on fewer than 25 children and has been suppressed.
[1] Medians and means are based on current status and durations are in months.
[2] Either exclusive breastfeeding or breastfeeding and plain water only

The daily frequency of breastfeeding in Eritrea tends to be high. Ninety-five percent of children under six months of age were breastfed six times or more in the 24 hours preceding the survey. However, frequency of breastfeeding is lower in Asmara and in the Gash-Barka Zone.

Types of Complementary Foods

Table 9.4 presents information on the types of foods received by children in the first three years of life, according to current breastfeeding status. As described above, exclusive breastfeeding is very common in Eritrea; even among children 4-5 months 45 percent are exclusively breastfed, although this drops to 10 percent by 8-9 months when children should be getting some complementary foods.

Infant formula is not commonly used in Eritrea. Overall, 9 percent of children who are still breastfeeding and 16 percent of non-breastfeeding children are given infant formula. Use of infant formula begins at 4-5 months (2 percent of children) and rises to a high of 18 percent among children 8-9 months who are still breastfeeding.

Table 9.4 Types of food received by children in the preceding 24 hours

Percentage of children under three years of age who received specific types of food in the 24 hours before the interview, and the percentage using a bottle with a nipple, by breastfeeding status and child's age in months, Eritrea 1995

Age (in months)	Breast milk only	Infant formula	Other milk	Other liquids	Meat/ poultry/ fish/ eggs	Injira/ gat/ sebko/ ajja[1]	Other	Use of bottle with a nipple	Number of children
BREASTFEEDING CHILDREN									
<2	75.5	0.0	3.7	11.5	0.5	0.4	0.9	0.5	140
2-3	56.9	0.0	8.0	21.4	0.0	2.0	0.0	4.9	173
4-5	45.2	2.3	10.7	22.5	1.1	3.5	5.5	3.4	134
6-7	21.3	11.3	25.0	47.2	10.3	16.5	26.1	5.9	147
8-9	9.8	18.4	30.1	53.2	13.7	43.1	40.4	2.7	143
10-11	6.5	13.6	35.3	68.4	22.0	50.2	53.5	3.9	133
12-13	3.4	11.2	47.2	76.0	29.0	73.3	57.3	5.5	124
14-15	0.0	10.7	44.3	76.0	20.1	75.1	64.1	4.8	123
16-17	1.0	12.5	43.8	75.7	29.9	80.2	63.3	5.9	107
18-23	0.2	8.7	47.4	72.7	22.6	89.5	72.2	1.8	224
24-29	0.0	10.0	42.1	80.5	27.2	88.2	78.5	6.7	111
30-35	0.0	9.6	67.4	74.0	31.5	85.1	70.6	0.0	68
0-3 months	65.2	0.0	6.1	16.9	0.2	1.3	0.4	2.9	313
4-6 months	40.6	6.1	13.5	27.9	3.2	5.9	10.5	4.7	211
7-9 months	9.5	15.5	30.8	54.8	13.8	36.7	38.2	3.4	213
Total	19.9	8.7	31.9	54.8	16.1	48.4	42.4	3.8	1,628
NON-BREASTFEEDING CHILDREN									
18-23 months	NA	24.2	58.6	80.9	38.4	88.9	80.5	11.5	105
24-29 months	NA	15.5	61.7	79.6	43.4	93.4	77.3	4.6	306
30-35 months	NA	13.0	53.0	88.0	38.8	93.5	78.2	8.2	337
Total	NA	16.1	59.0	83.4	40.3	91.4	77.0	8.8	796

Note: Total for non-breastfeeding children includes children age 0-17 months.
NA = Not applicable
[1] Grain/flour/cereal

Use of "other" types of milk (e.g., cow's milk) is very common amongst all children under three years; 32 percent and 59 percent of breastfeeding children and non-breastfeeding children, respectively, are given milk. Among children still being breastfed, use of other milk increases from 25 percent at 6-7 months to 47 percent at 12-13 months. The peak use of other milk occurs at 24-29 months (62 percent) among children who are no longer breastfeeding.

The feeding of "other" liquids, such as juice or tea, increases steadily to 76 percent at 12-13 months and fluctuates thereafter until it peaks at 24-29 months (81 percent) among children who are still breastfeeding. Among non-breastfeeding children, supplementation with other liquids is very common; overall, it is 83 percent, and a high of 88 percent among children 30-35 months old. Only 16 percent of breastfeeding children under three years are given meat, poultry, fish or eggs. The percentage of children receiving these foods rises from 10 percent at 6-7 months, to 29 percent at 12-13 months. Injera (bread made from fermented sorghum), gat (porridge), sibko, ajja and other foods prepared from flour and cereal are the common weaning foods in Eritrea among currently breastfeeding children, 48 percent of whom receive these foods. By 6-7 months, 17 percent of currently breastfeeding children receive porridge (gat) or other solid and mushy foods, and by 12-13 months 73 percent are receiving porridge or other foods on a daily basis. Feeding these foods increases to 90 percent for children 18-23 months.

The use of a bottle with a nipple to feed children is of interest to both demographers and health personnel. Bottle feeding has a direct effect on the mother's exposure to the risk of pregnancy because the period of amenorrhea may be shortened when breastfeeding is reduced or replaced by bottle feeding. In addition, because it is often difficult to sterilize the nipple properly, the use of feeding bottles with nipples exposes children to an increased risk of diarrhea and other diseases. Bottle feeding is very rare in Eritrea for both breastfeeding and non-breastfeeding children (4 percent and 9 percent, respectively). Less than one percent of children under two months were given a bottle with a nipple in addition to breast milk and a maximum of 6-7 percent of children in any age group use it.

9.2 Nutritional Status of Children under Age Three

The anthropometric data on height and weight collected in the EDHS permit measurement and evaluation of the nutritional status of young children in Eritrea. This evaluation allows identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development, and death.

Measures of Nutritional Status in Childhood

Evaluation of nutritional status is based on the rationale that in a well-nourished population, there is a statistically predictable distribution of children of a given age with respect to height and weight. Use of a standard reference population facilitates analysis of any given population over time, as well as comparison of subgroups of the population. One of the most commonly used reference populations, and the one used in this report, is the NCHS (U.S. National Center for Health Statistics) standard, which is recommended for use by the World Health Organization (WHO).

Three standard indices of physical growth that describe the nutritional status of children are presented:

- height-for-age
- weight-for-height
- weight-for-age

Each of these indices gives different information about growth and body composition that can be used to assess nutritional status.

Height-for-age is a measure of linear growth. A child who is below minus two standard deviations (-2 SD) from the median of the NCHS reference population in terms of height-for-age is considered short for his/her age, or *stunted,* a condition reflecting the cumulative effect of chronic malnutrition. If the child is below minus three standard deviations (-3 SD) from the reference median, then the child is considered to be severely stunted. A child between -2 SD and -3 SD is considered moderately stunted.

Weight-for-height describes current nutritional status. A child who is below minus two standard deviations (-2 SD) from the reference median for weight-for-height is considered too thin for his/her height, or *wasted,* a condition reflecting acute or recent nutritional deficit. As with stunting, wasting is considered severe if the child is more than three standard deviations below the reference median. Severe wasting is closely linked to mortality risk.

Weight-for-age is a composite index of weight-for-height and height-for-age and, thus does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his age because he is stunted, because he is wasted, or because he is wasted and stunted. Weight-for-age is a good overall indicator of a population's nutritional health, and can be used to estimate the contribution of malnutrition to under-five mortality.

In the survey, all surviving children born since January 1992 were eligible for height and weight measurement. Of the 2,424 children (age 0-35 months at the time of the survey) eligible for measurement, 97 percent were weighed and measured (see Table C.3 in Appendix C). The reason most commonly reported for not measuring a child was that the child was not at home. Of the children who were both weighed and measured, there was a very small percentage of children for whom age data were not usable or who were considered to have implausibly low or high values for height-for-age or weight-for-height. The following analysis focuses on the 2,269 children (or 94 percent of children) age 0-35 months, for whom complete age and anthropometric data were collected.

In a healthy, well-fed population of children, it is expected that only 2.3 percent of children will fall below minus two standard deviations (-2 SD) from the median of the reference population for each of the three indices. Less than one percent of children are expected to be below minus three standard deviations (-3 SD).

Levels of Child Malnutrition in Eritrea

Table 9.5 shows the percentage of children age 0-35 months classified as malnourished according to height-for-age, weight-for-height, and weight-for-age indices, by the child's age and selected background characteristics. Over 38 percent of children under three years were classified as stunted, almost half of whom were severely stunted. The prevalence of stunting increases with age, from 4 percent among children under 6 months to 57 percent among those 24-35 months (see Figure 9.1). The prevalence of stunting is slightly higher among girls than boys (41 percent versus 36 percent), and increases with increasing birth order from 35 percent among first births to 45 percent among children of birth orders six or higher. Children born after a short birth interval (less than 24 months) are much more likely to be stunted than children born after longer birth intervals. Children living in rural areas are more likely to have low height-for-age (stunting) than their urban counterparts. Zonal variations in nutritional status should be viewed with caution since the numbers on which the estimates are based are small in some cases. Despite this, some useful observations can be made; for instance, stunting is lowest in the Central Zone and highest in the Northern Red Sea Zone. Children of women with no education are almost three times as likely to be stunted as children of women with some secondary or higher education.

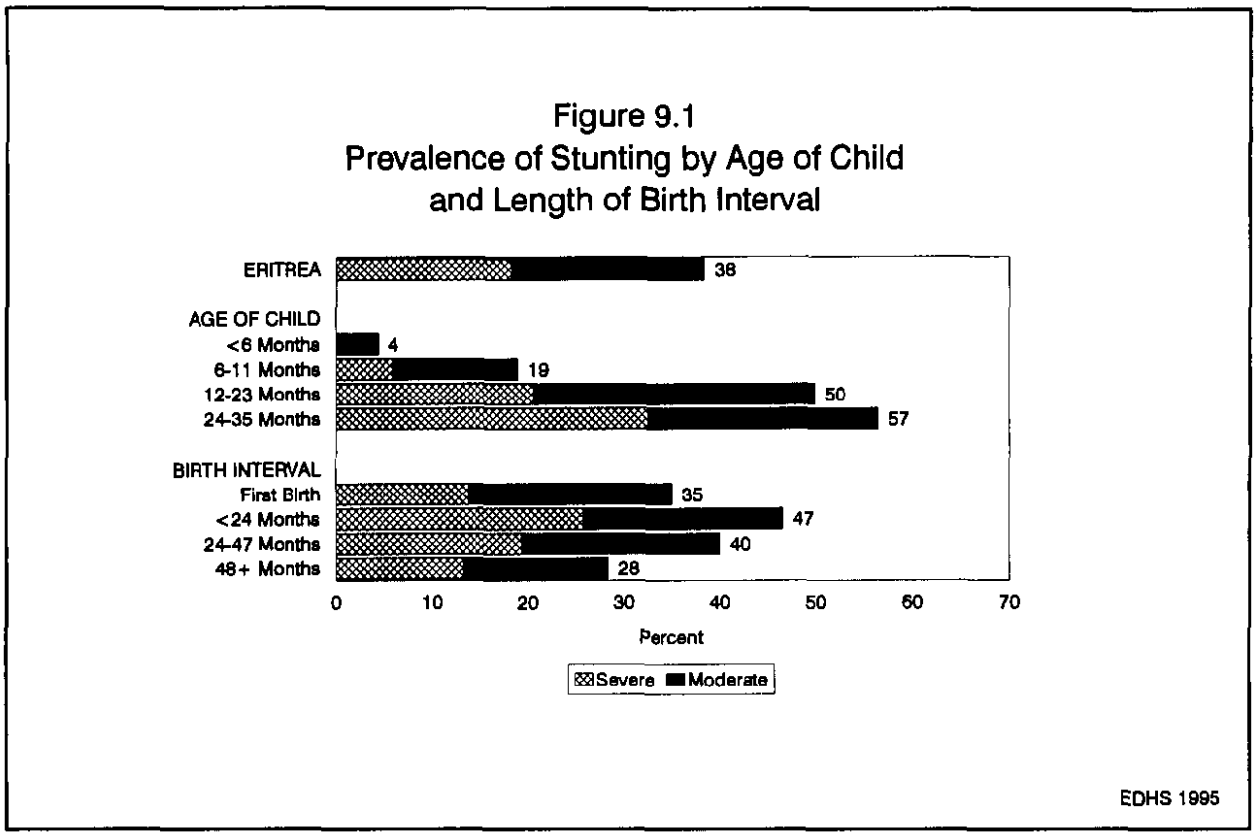
Table 9.5 Nutritional status of children by background characteristics

Percentage of children under three years of age who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected background characteristics, Eritrea 1995

Background characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage below -3 SD	Percentage below - 2 SD[1]	
Child's age							
<6 months	0.1	4.4	2.9	6.5	1.4	6.2	403
6-11 months	5.9	19.0	2.5	14.9	9.6	35.5	415
12-23 months	20.6	49.9	5.7	25.3	22.7	55.8	692
24-35 months	32.5	56.5	1.3	14.4	24.1	57.1	759
Child's sex							
Male	16.6	36.4	3.5	16.2	16.0	42.3	1,162
Female	20.0	40.5	2.8	16.7	18.0	45.2	1,107
Birth order							
1	13.9	35.2	2.2	16.5	11.2	37.5	499
2-3	16.8	33.8	3.2	15.8	15.8	41.0	703
4-5	21.0	40.9	5.8	17.6	20.6	46.7	496
6+	21.5	44.5	1.7	16.1	20.3	49.9	570
Previous birth interval							
First birth	13.8	35.1	2.2	16.4	11.2	37.3	501
< 24 months	25.8	46.6	2.9	18.3	22.1	50.8	347
24-47 months	19.3	40.0	3.6	15.7	18.1	46.4	1,116
48+ months	13.2	28.4	3.4	16.9	16.3	36.5	304
Residence							
Urban	11.3	28.7	2.0	12.8	9.4	31.0	473
Asmara	7.9	22.7	1.7	9.6	5.5	24.2	251
Other towns	15.3	35.4	2.4	16.4	13.7	38.6	222
Rural	20.1	40.9	3.4	17.4	19.0	47.1	1,796
Zone							
Southern Red Sea	17.6	35.2	4.3	23.0	13.2	40.8	36
Northern Red Sea	26.3	47.2	3.7	22.2	23.5	54.7	281
Anseba	21.1	45.4	4.0	15.0	16.9	47.0	300
Gash-Barka	21.4	41.0	4.1	23.5	27.3	53.4	425
Southern	15.7	34.7	3.0	15.1	14.1	39.7	820
Central	12.5	32.2	1.3	8.3	7.9	32.0	408
Mother's education							
No education	20.8	41.8	3.3	17.3	19.7	47.2	1,735
Primary incomplete	11.4	30.7	3.2	15.2	9.9	38.3	328
Primary complete	10.2	26.3	1.9	9.8	7.7	28.2	105
Secondary+	4.3	16.5	1.0	12.7	2.4	18.0	101
Total	18.3	38.4	3.1	16.4	17.0	43.7	2,269

Note: Figures are for children born in the period 0-35 months preceding the survey. Each 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-scores are below minus two or minus three standard deviations (-2 SD or -3 SD) from the median of the reference population.

[1] Includes children who are below -3 SD



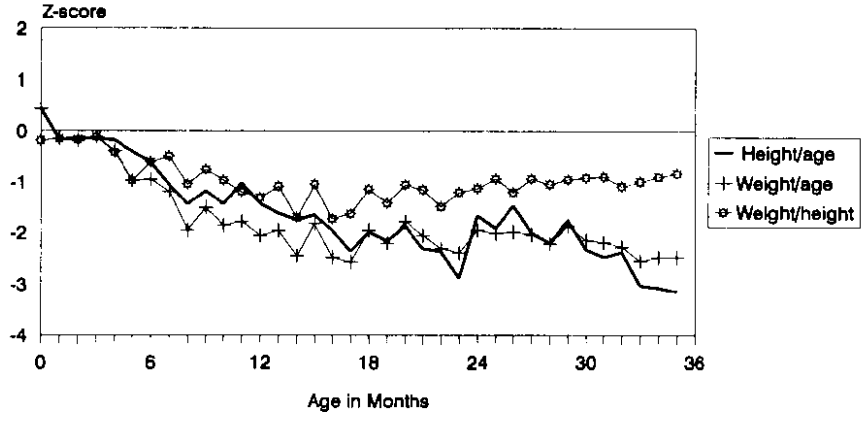
The weight-for-height index gives information about children's recent experience regarding food intake. Wasting represents failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of recent illness, or of seasonal variations in the food supply. Sixteen percent of children under three in Eritrea are wasted; 3 percent are severely wasted. Wasting is most common at 6-23 months, indicating that food supplementation during the weaning period may be inadequate. Rural children and children of uneducated mothers are more disadvantaged than urban children and children whose mothers have attended school. Wasting is higher in the Southern Red Sea, Northern Red Sea, and Gash-Barka Zones and lower in the Central Zone than in other zones. There is no significant variation in wasting by sex or birth order.

About 44 percent of children under three in Eritrea are underweight—which may reflect stunting, wasting, or both. Low weight-for-age is notably higher in the second and third year of life than in the first. Children of very high birth order (six or higher) are at greater risk of being underweight than those of lower birth order. The proportion of children who are underweight increases sharply with decreasing length of the birth interval, from 37 percent among children born 48 months or longer after a preceding birth to 51 percent among children born after intervals of less than 24 months. Variations in low weight-for-age among zones follow similar patterns to those observed for stunting.

Figure 9.2 shows mean z-scores[3] for the three anthropometric indices by age, demonstrating the marked deterioration in nutritional status that begins shortly after birth, continues through the first year and a half, and then levels off or improves slightly thereafter to the third birthday.

[3] A z-score is interpreted as the number of standard deviation units above or below the median of the standard reference population. In this case, the reference population is the NCHS/WHO/CDC standard.

Figure 9.2
Nutritional Status of Children Under Three Years,
Mean Z-scores by Age in Months



Note: Compared with the median of the International Reference Population

EDHS 1995

9.3 Maternal Anthropometric Status

In the EDHS, data were collected on the height and weight of women who had at least one birth since January 1992. This sample of women is thus not representative of all women 15-49, and will over represent high fertility age groups, for example, women 25-34 years.

Several measures have been used to assess the nutritional status of women (Krasovec and Anderson, 1991). In this report, two indices are presented: height and body mass index (BMI)—which is an indicator combining height and weight data.

Table 9.6 presents the mean values for the maternal anthropometric indicators and the proportion of women that fall in various high-risk categories, by selected background characteristics. A woman's height is associated with past socioeconomic status and nutrition during childhood and adolescence. Maternal height can be used to predict the risk of difficult delivery, since small stature is often associated with small pelvis size. The risk of having a low birth weight baby also appears to be higher for short women. The optimal cut-off point, below which a woman can be identified as at risk, is in the range of 140-150 centimeters. The mean height of mothers measured in the EDHS was 156 cm. In Eritrea about 2 percent of mothers were under 145 cm in height.[4] Mothers under 20 years of age and those with no education are slightly more likely to be under 145 cm than older mothers and those with some education. There is some variation in women's height by zone, with around 4 to 5 percent of the mothers being under 145 cm in the Anseba, the Gash-Barka and the Northern Red Sea Zones, compared with about 1 percent in the Southern and the Central Zones, where mothers tend to be taller.

[4] Thirteen percent of the mothers are shorter than 150 centimeters and less than one percent fall below 140 centimeters.

Table 9.6 Nutritional status of mothers by background characteristics

Among women who had a birth in the three years preceding the survey, percentage of women under 145 centimenters, mean body mass index (BMI) of women, and percentage of women whose BMI is less than 18.5 (kg/m^2), by selected background characteristics, Eritrea 1995

	Height			BMI		
Background characteristic	Mean	Percentage <145 cm	Number of women	Mean	Percentage <18.5 (kg/m^2)	Number of women
Age						
15-19	156.1	3.4	201	18.8	45.2	158
20-24	155.9	1.9	453	19.1	42.4	363
25-29	155.8	2.9	513	19.3	43.7	402
30-34	155.7	2.4	398	19.5	41.3	322
35-49	156.7	1.7	624	20.0	35.3	534
Residence						
Urban	156.3	1.5	457	21.1	27.1	384
Asmara	156.6	0.9	242	21.9	20.9	206
Other towns	155.8	2.2	215	20.2	34.2	178
Rural	156.1	2.5	1,733	19.0	44.3	1,395
Zone						
Southern Red Sea	155.2	0.0	54	18.4	63.9	48
Northern Red Sea	153.9	3.5	287	19.2	42.9	235
Anseba	154.9	4.2	279	19.3	47.5	232
Gash-Barka	155.2	4.5	424	18.8	51.6	327
Southern	157.4	0.9	754	19.2	38.0	607
Central	157.1	0.8	390	20.9	24.6	329
Education						
No education	155.9	2.7	1,689	19.1	44.0	1,358
Primary incomplete	156.8	1.0	299	20.1	33.7	246
Primary complete	156.5	2.0	102	20.6	27.6	88
Secondary+	157.1	0.7	99	21.7	20.8	87
Total	156.1	2.3	2,189	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.

Various indices of body mass are used to assess thinness and obesity. The most commonly used is the Body Mass Index (BMI) which is defined as weight in kilograms divided by squared height in meters. A cut-off point of 18.5 has been recommended for defining energy deficiency among nonpregnant women. The mean BMI among the weighed and measured mothers[5] was 19.5, with 41 percent having a BMI below 18.5, reflecting a very high nutritional deficit.

There are large differentials across background characteristics in the percentage of mothers assessed as malnourished using the BMI. Rural women are almost twice as likely to be underweight as urban women. Women with some secondary education are significantly less likely to have a low BMI than their less educated counterparts. Variations in matemal malnutrition among the zones are substantial, ranging from 25 percent of mothers with low BMI in the Central Zone to 64 percent in the Southern Red Sea Zone.

[5] Pregnant women were excluded from the BMI analyses because precise data on gestational age, necessary for adjustments, were not available.

CHAPTER 10

AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

The disease Acquired Immune Deficiency Syndrome (AIDS) has probably existed since the early 1970s, however the first few cases were described in the USA (Los Angeles) in 1981. The exact prevalence of the disease cannot be known for a variety of reasons such as the biological aspects of the disease, its social stigma, the inability to have HIV testing done on a routine basis, etc. The number of AIDS cases is rising; thus, it will continue to be one of the world's biggest health care problems. An estimate for mid-1995 indicates that 20 million people have been infected with HIV (WHO, 1995). Since the onset of the pandemic, the number of AIDS cases reported to WHO among adults and children rose to 1,169,811 as of June 1995 (WHO, 1995). Taking into account undiagnosed cases and incomplete reporting it is believed that this figure may exceed 4.5 million, of which 71 percent are in Africa, 9 percent in South America, 9 percent in the USA, 6 percent in Asia, 4 percent in Europe and 1 percent in Oceania.

Although there is no epidemiological surveillance system on HIV/AIDS and sexually transmitted diseases (STDs) in Eritrea, some studies have been conducted. The first AIDS cases were reported in Aseb in 1988. According to hospital reports, as of September 1995, a cumulative total of 1,784 AIDS cases had been reported to the National AIDS Control Program (NACP) and about 55 new cases are reported every month. However, taking into account underreporting and misdiagnosis, the figure is expected to be much higher than it appears from the reports. The number of AIDS cases in the country is doubling every 13 months and about 11 to 15 persons with AIDS are dying every month. Of the reported cases, 70 percent are age 20-39 years and 68 percent are men while 32 percent are women. Although HIV/AIDS and STDs are epidemiologically related, the exact relationship is not clear. The STD clinic in Asmara indicates that about 2 to 5 percent of commercial sex workers examined as outpatients have an STD. The most common STDs in this group are gonorrhea and syphilis.

The future course of what is now a worldwide epidemic depends to a large extent on the level of AIDS awareness among the general public. To investigate knowledge of AIDS, all respondents in the EDHS were asked a series of questions about awareness of the disease, source of information about AIDS, knowledge of ways to avoid AIDS, and changes in their behavior to avoid AIDS. The Men's Questionnaire included the full DHS AIDS module which covers many more areas related to the topic than the Women's Questionnaire.

10.1 Sexual Partners

Given the evidence that the vast majority of HIV infections in Eritrea are contracted through heterosexual contact, information on sexual behavior is important in designing and monitoring intervention programs to control the spread of the disease. The EDHS Men's Questionnaire included questions about the number of persons (including spouse) the respondent had sex with in the 12 months before the survey, and whether the person the respondent last had sex with was his wife, a regular partner, an acquaintance, or someone he paid.

Table 10.1 shows the percent distribution of currently married and unmarried men by number of persons with whom they had sex in the 12 months preceding the survey, according to selected background characteristics. For married men, only 2 percent reported abstaining in the last 12 months, while 3 percent reported having sex with two or more women. The vast majority (95 percent) of married men reported having only one sexual partner. Thus, the mean number of sex partners for married men was one. Three percent of married men reported sex outside of marriage (i.e., partners excluding spouse). Among married men, sex

Table 10.1 Number of recent sexual partners: men

Percent distribution of currently married men and of currently unmarried men by the number of sexual partners in the 12 months preceding the survey, according to selected background characteristics, Eritrea 1995

	Currently married men														Unmarried men							
	Number of partners including spouse							Number of partners excluding spouse							Number of partners							
Background characteristic	0	1	2-3	4+	Don't know/ Missing	Total	Mean	0	1	2-3	4+	Total	Mean	Number of men	0	1	2-3	4+	Don't know/ Missing	Total	Mean	Number of men
Age																						
15-19	*	*	*	*	*	100.0	*	*	*	*	*	100.0	*	3	98.3	1.3	0.4	0.0	0.0	100.0	--	234
20-24	(1.1)	(98.9)	(0.0)	(0.0)	(0.0)	100.0	(1.0)	(98.3)	(1.7)	(0.0)	(0.0)	100.0	--	43	71.8	8.9	14.2	5.0	0.0	100.0	0.8	99
25-29	3.8	87.1	6.8	0.6	1.7	100.0	1.1	92.5	4.6	2.3	0.6	100.0	0.1	77	66.1	13.4	10.7	2.7	7.2	100.0	0.7	51
30-39	0.9	95.0	4.1	0.0	0.0	100.0	1.0	95.6	4.1	0.3	0.0	100.0	--	202	(59.6)	(24.0)	(10.0)	(1.1)	(5.2)	100.0	(0.6)	25
40-49	2.1	94.8	2.1	0.0	0.9	100.0	1.0	97.9	2.0	0.1	0.0	100.0	--	211	*	*	*	*	*	100.0	*	19
50-54	1.9	97.1	0.5	0.5	0.0	100.0	1.0	99.0	0.5	0.0	0.5	100.0	--	138	*	*	*	*	*	100.0	*	12
Marital duration																						
Never married	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87.3	4.7	6.1	1.9	0.0	100.0	0.3	390
Had sex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.3	28.2	36.2	11.2	0.0	100.0	1.9	65
Never had sex	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100.0	NA	NA	NA	NA	100.0	NA	324
0-4	2.3	93.6	3.8	0.4	0.0	100.0	1.0	95.3	3.2	1.1	0.4	100.0	0.1	132	*	*	*	*	*	*	*	7
5-9	1.9	95.1	1.8	0.0	1.1	100.0	1.0	98.2	1.3	0.5	0.0	100.0	--	113	*	*	*	*	*	*	*	15
10-14	0.0	95.1	4.9	0.0	0.0	100.0	1.0	95.1	4.9	0.0	0.0	100.0	--	100	*	*	*	*	*	*	*	8
15+	2.2	95.0	2.0	0.2	0.6	100.0	1.0	97.5	2.1	0.2	0.2	100.0	--	329	*	*	*	*	*	*	*	20
Residence																						
Urban	2.0	93.4	3.5	0.7	0.4	100.0	1.1	94.9	4.0	0.4	0.7	100.0	0.1	165	78.1	11.2	6.8	3.6	0.4	100.0	0.5	191
Asmara	1.5	94.8	3.0	0.7	0.0	100.0	1.1	94.8	4.4	0.0	0.7	100.0	0.1	98	81.2	8.8	6.6	2.8	0.6	100.0	0.5	131
Other towns	2.6	91.4	4.3	0.7	0.9	100.0	1.0	95.0	3.5	0.9	0.7	100.0	0.1	67	71.1	16.3	7.0	5.6	0.0	100.0	0.7	60
Rural	1.8	95.2	2.5	0.0	0.5	100.0	1.0	97.5	2.1	0.4	0.0	100.0	--	510	88.4	3.8	4.9	0.5	2.4	100.0	0.2	248
Education																						
No education	0.9	97.4	1.0	0.0	0.6	100.0	1.0	99.0	0.7	0.3	0.0	100.0	--	418	84.2	6.6	3.7	0.7	4.8	100.0	0.2	102
Primary incomplete	4.3	90.5	5.3	0.0	0.0	100.0	1.0	94.7	4.9	0.4	0.0	100.0	0.1	139	88.4	4.9	5.6	0.0	1.1	100.0	0.2	104
Primary complete	2.7	85.7	8.3	2.2	1.1	100.0	1.2	89.5	7.8	0.5	2.2	100.0	0.2	55	86.3	7.2	3.3	3.2	0.0	100.0	0.3	81
Secondary+	1.9	94.2	3.9	0.0	0.0	100.0	1.0	93.8	5.7	0.5	0.0	100.0	0.1	63	79.4	8.5	8.5	3.1	0.5	100.0	0.5	152
Total	1.8	94.7	2.8	0.2	0.5	100.0	1.0	96.8	2.6	0.4	0.2	100.0	--	675	83.9	7.0	5.7	1.8	1.5	100.0	0.3	439

Note: Figures in parentheses are based on 25 to 49 men; an asterisk indicates that a figure is based on fewer than 25 men and has been suppressed.
NA = Not applicable
-- Less than 0.05

outside marriage is higher for the 25-29 and 30-39 age groups, for men married 0-4 or 10-14 years, for those living in urban areas, and for men who have some education.

Among men who are not currently married, the picture is quite different. Eighty-four percent of unmarried men reported having no sexual partners in the 12 months preceding the survey while 7 percent had only one partner and 9 percent had two or more partners. Among unmarried men, sexual activity increases with age, is higher in urban areas (especially in other towns) than in rural areas, and is slightly higher among men with secondary or higher level of education. Never-married men who have ever had sex had an average of two sexual partners. Among unmarried men, a higher proportion had more than one partner among men age 20-24, men living in other towns, and those with secondary or higher education.

In the EDHS, men who ever had sexual intercourse were asked about the last person with whom they had sex. Table 10.2 shows the distribution of respondents by their responses to this question, according to selected background variables. Among currently married men, only 1 percent had sex most recently with someone other than their wife or regular partner. Among men who were not currently married, 36 percent last had sex with a regular partner, 20 percent last had sex with someone they paid, and 44 percent had sex with someone else (including acquaintances). Young, urban unmarried men and unmarried men with secondary and higher education are more likely to have paid someone to be their last sexual partner.

Table 10.3 focuses on men who were sexually active in the 12 months before the survey and shows the percentage of these men who gave money, gifts, or favors in exchange for sex during this period. Among currently married men, 1 percent reported having paid for sex. Among the small group of men who are not currently married who had sex in the last 12 months, one-third reported paying for sex. Differentials for this group cannot be examined because of the small number of cases (less than 25) in the majority of the subgroups. However, differentials for all men indicate that paying for sex decreases as age increases, that it is more common in urban areas (especially in other towns), and that it increases with increasing education. The most notable results are that 19 percent of men age 20-24, 13 percent of men in other towns, and 13 percent of men with secondary or higher education reported that they paid for sex in the 12 months preceding the survey.

Table 10.2 Person with whom most recent sexual intercourse occurred: men

Percent distribution of men who ever had sexual intercourse by person with whom they last had sex, according to current marital status and selected background characteristics, Eritrea 1995

Background characteristic	Currently married men						Not currently married men						Total men						
	Last partner						Last partner						Last partner						
	Spouse	Regular partner	Someone paid	Other	Total	Number of men	Regular partner	Someone paid	Other	Missing	Total	Number of men	Spouse	Regular partner	Someone paid	Other	Missing	Total	Number of men
Age																			
20-24	(53.5)	(44.8)	(0.0)	(1.7)	100.0	43	(4.1)	(36.3)	(59.7)	(0.0)	100.0	36	29.2	26.3	16.5	28.1	0.0	100.0	79
25-29	67.1	28.3	0.6	4.0	100.0	77	(33.5)	(16.8)	(49.6)	(0.0)	100.0	26	49.9	29.7	4.8	15.7	0.0	100.0	103
30-39	69.0	29.6	0.0	1.4	100.0	202	*	*	*	*	100.0	18	63.4	31.6	0.5	4.5	0.0	100.0	220
40-49	65.7	33.9	0.1	0.3	100.0	211	*	*	*	*	100.0	17	60.8	36.3	0.6	1.9	0.4	100.0	228
50-59	62.2	37.8	0.0	0.0	100.0	138	*	*	*	0.0	100.0	12	57.2	41.5	1.0	0.3	0.0	100.0	150
Residence																			
Urban	78.7	18.4	0.5	2.4	100.0	165	9.6	27.1	63.4	0.0	100.0	61	57.5	16.0	7.6	18.8	0.0	100.0	226
Asmara	82.2	14.1	0.0	3.7	100.0	98	7.7	21.2	71.2	0.0	100.0	38	59.4	12.3	5.9	22.5	0.0	100.0	135
Other towns	73.6	24.8	1.2	0.4	100.0	67	(12.6)	(36.7)	(50.7)	(0.0)	100.0	23	54.7	21.6	10.3	13.4	0.0	100.0	90
Rural	61.1	38.1	0.0	0.8	100.0	510	(66.0)	(11.0)	(21.4)	(1.6)	100.0	54	55.2	40.8	1.1	2.8	0.2	100.0	564
Education																			
No education	66.0	33.7	0.0	0.3	100.0	418	(81.7)	(8.1)	(7.9)	2.2	100.0	39	60.3	37.8	0.7	1.0	0.2	100.0	457
Primary incomplete	59.4	38.6	0.0	2.0	100.0	139	*	*	*	*	100.0	16	53.2	38.0	2.7	6.2	0.0	100.0	155
Primary complete	67.3	31.2	1.4	0.0	100.0	55	*	*	*	*	100.0	16	51.9	30.2	4.5	13.4	0.0	100.0	71
Secondary+	73.1	20.7	0.0	6.2	100.0	63	0.0	29.1	70.9	0.0	100.0	43	43.4	12.3	11.9	32.5	0.0	100.0	107
Total	65.4	33.3	0.1	1.2	100.0	675	36.1	19.5	43.6	0.8	100.0	115	55.9	33.7	2.9	7.4	0.1	100.0	790

Note: Total includes 15 men age 15-19 years who are not shown separately. Figures in parentheses are based on 25 to 49 men; an asterisk indicates that a figure is based on fewer than 25 men and has been suppressed.

Table 10.3 Payment for sexual relations

Among men who had sexual intercourse in the last 12 months, percentage who have given money, gifts or favors in exchange for sex by marital status, according to selected background characteristics, Eritrea 1995

Background characteristic	Currently married men		Men who are not currently married		All men	
	Percent	Number	Percent	Number	Percent	Number
Age						
20-24	(0.0)	43	(48.1)	28	19.0	70
25-29	0.9	73	*	17	6.2	90
30-39	1.4	200	*	12	2.2	212
40-49	1.3	205	*	7	2.4	212
50-59	0.5	135	*	4	1.0	139
Residence						
Urban	1.7	160	36.7	42	9.0	202
Asmara	0.8	95	(26.5)	25	6.0	120
Other towns	3.1	65	(51.2)	17	13.2	82
Rural	0.8	498	*	31	2.4	529
Education						
No education	0.4	411	*	18	1.1	429
Primary incomplete	2.2	133	*	12	4.6	145
Primary complete	4.3	52	*	11	10.9	64
Secondary+	0.2	61	(39.1)	31	13.3	93
Total	1.0	658	33.2	72	4.2	731

Note: Total includes 12 men age 15-19 years who are not shown separately. Figures in parentheses are based on 25 to 49 men; an asterisk indicates that a figure is based on fewer than 25 men and has been suppressed.
NA = Not applicable

10.2 Awareness and Prevalence of Sexually Transmitted Diseases Among Men

Awareness of Sexually Transmitted Diseases

Table 10.4 shows the percentage of men who have (spontaneous) knowledge of specific STDs, by various background characteristics. The men surveyed in the EDHS were asked if they had heard about diseases that can be transmitted through sex, and if so, they were asked to name those diseases. Among men, AIDS is by far the most widely known STD. Without probing, 81 percent of men cited AIDS. (After probing, this figure is 89 percent for men as shown in Table 10.5.2). The next most reported STD was gonorrhea, with 67 percent of men reporting knowing the disease. Syphilis is also a commonly known STD (46 percent). About 15 percent of men could not cite a single STD.

Men are least likely to be informed about STDs if they are very young (15-19 years), if they live in rural areas, in the Gash-Barka or Southern Zones, or if they lack formal education. Those who are over 50 or who never had sex are also less likely to mention any STD spontaneously. Almost all of the men who mentioned any STD mentioned HIV/AIDS.

Table 10.4 Knowledge of sexually transmitted diseases

Percentage of men who know of specific sexually transmitted diseases, by selected background characteristics, Eritrea 1995

Background characteristic	Syphilis	Gonorrhea	HIV/ AIDS[1]	Genital warts	Other	Don't know any	Number of men
Age							
15-19	23.1	43.4	77.1	2.5	0.8	21.3	237
20-24	52.8	77.9	89.1	2.6	0.0	7.2	142
25-29	48.9	80.6	87.7	7.1	2.2	8.1	127
30-39	55.5	76.9	83.0	2.4	0.6	13.1	227
40-49	51.9	68.8	77.9	2.6	1.8	15.8	231
50-59	50.4	67.6	72.9	4.6	1.6	18.6	150
Current marital status							
Never married	34.8	59.1	82.9	3.8	0.7	15.6	390
Had sex	62.2	93.2	94.7	7.2	1.1	0.9	65
Never had sex	29.2	52.2	80.5	3.1	0.6	18.6	324
Currently married	51.2	71.6	79.4	3.1	1.4	14.8	675
Formerly married	(65.4)	(75.7)	(79.7)	(2.3)	(1.5)	(8.5)	50
Residence							
Urban	58.0	81.3	97.5	7.9	1.0	1.4	356
Asmara	59.8	83.5	99.1	7.6	1.6	0.3	229
Other towns	54.8	77.1	94.8	8.5	0.0	3.3	127
Rural	40.5	60.9	72.7	1.1	1.2	21.1	758
Zone							
Southern Red Sea	55.2	85.6	85.6	18.2	0.0	3.0	39
Northern Red Sea	46.9	63.7	79.0	0.7	0.4	16.1	110
Anseba	52.2	73.5	89.2	3.2	0.0	10.8	133
Gash-Barka	43.2	62.1	56.0	1.2	0.0	29.3	233
Southern	30.9	50.3	76.3	1.6	2.6	22.0	286
Central	58.1	83.3	99.3	5.6	1.5	0.2	312
Education							
No education	36.8	56.7	64.9	1.3	1.0	26.3	520
Primary incomplete	48.3	65.0	89.3	1.6	1.1	9.9	243
Primary complete	55.9	77.5	97.1	6.1	1.4	2.5	136
Secondary+	59.7	89.4	98.5	8.4	1.3	0.3	215
Total	46.1	67.4	80.6	3.3	1.1	14.8	1,114

Note: Figures are based on *spontaneous* knowledge of sexually transmitted diseases (i.e., without probing). Figures in parentheses are based on 25 to 49 men.
[1] See Table 10.5.2 for level of knowledge of HIV/AIDS *after probing.*

Prevalence of Sexually Transmitted Diseases

The EDHS asked men whether they had had any sexually transmitted diseases (STDs) in the last 12 months. If so, the respondents were asked to name the particular STD, and whether they informed their partner or partners about the disease and what action (if any) they took in order not to transmit the disease to someone else. Less than 1 percent of men reported having an STD in the last year (data not shown). This is likely to be an underestimate of the true incidence of STDs for two reasons. First, many STD cases will be unrecognized because: (a) no obvious, prolonged symptoms were experienced, (b) no health care was sought, or (c) the problem was misdiagnosed or misunderstood by the respondent when diagnosed. Perhaps more importantly, many men will fail to report a recent STD because of the inherent social stigma. Because the number of men reporting having any STD in the 12 months before the survey is small, information is not presented on men's actions to inform or not inform their partners and on changes in behavior so as not to infect others.

10.3 AIDS Knowledge and Awareness

All women and men who did not mention AIDS spontaneously were asked if they had ever heard of an illness called AIDS. Those who had heard of AIDS were asked a series of questions about their knowledge and attitudes regarding AIDS and the HIV virus.

Awareness of AIDS

Tables 10.5.1 and 10.5.2 show that 72 percent of women and 89 percent men know of AIDS. Men are more aware of AIDS in every subgroup. Knowledge of the disease is inversely related to age. Never-married women and men are more likely to be aware of AIDS than currently and formerly married women

Table 10.5.1 Knowledge of AIDS and sources of AIDS information: women

Percentage of women who have ever heard of AIDS, percentage who received information about AIDS from specific sources, and mean number of sources of information about AIDS, by selected background characteristics, Eritrea 1995

		Source of AIDS information												
Background characteristic	Ever heard of AIDS	Radio	TV	News-paper	Pamph-let	Health worker	Mosque/ church	School	Com-munity meet-ing	Friend/ Rela-tive	Work place	Other source	Mean num-ber of sources	Number of women
Age														
15-19	82.1	73.8	23.3	26.1	9.8	4.9	0.1	18.6	2.3	30.1	0.6	0.0	2.3	1,129
20-24	76.5	69.0	21.0	22.9	7.3	7.2	0.3	7.8	5.5	30.1	2.0	0.2	2.3	823
25-29	69.4	62.6	12.8	13.6	5.2	7.0	0.2	1.3	4.0	31.7	1.8	0.0	2.0	782
30-39	67.7	55.3	11.7	12.5	6.8	9.8	0.7	0.8	7.6	31.2	2.7	0.0	2.1	1,200
40-49	65.9	55.7	11.2	6.5	3.5	5.8	0.2	0.2	5.2	28.9	1.3	0.3	1.8	1,120
Current marital status														
Never married	86.6	81.1	37.0	40.5	13.7	5.5	0.3	24.5	3.1	22.9	2.7	0.1	2.7	1,009
Had sex	(78.1)	(69.0)	(20.4)	(26.8)	(18.1)	(4.7)	(0.0)	(6.9)	(2.2)	(31.8)	(0.0)	(0.0)	(2.3)	29
Never had sex	86.8	81.5	37.5	40.9	13.5	5.5	0.3	25.1	3.1	22.6	2.8	0.1	2.7	981
Currently married	66.3	56.2	9.7	9.2	4.2	7.2	0.3	1.2	5.4	31.9	1.0	0.1	1.9	3,371
Formerly married	80.3	69.1	15.3	13.8	7.8	7.8	0.5	1.0	5.8	33.9	3.4	0.2	2.0	674
Residence														
Urban	97.2	91.4	45.4	41.9	15.6	13.4	0.5	12.9	6.1	23.4	4.0	0.3	2.6	1,648
Asmara	98.7	94.3	58.6	51.5	17.5	14.6	0.4	15.9	5.8	16.3	5.1	0.3	2.8	1,059
Other towns	94.5	86.1	21.7	24.7	12.3	11.1	0.7	7.4	6.7	36.2	2.0	0.1	2.2	589
Rural	60.1	49.1	1.6	3.6	2.2	3.9	0.2	2.5	4.4	33.7	0.5	0.0	1.7	3,406
Zone														
Southern Red Sea	61.7	35.7	30.0	8.1	4.6	2.5	0.0	2.1	2.9	30.6	0.0	0.0	1.9	139
Northern Red Sea	57.3	45.2	4.3	4.9	3.5	4.5	0.4	1.6	1.6	24.5	1.9	0.0	1.6	556
Anseba	62.9	56.0	4.3	9.8	5.0	3.1	0.2	2.5	1.9	15.6	0.8	0.1	1.6	642
Gash-Barka	41.0	32.3	1.3	2.6	2.5	5.6	0.2	1.5	4.1	20.1	0.5	0.0	1.7	957
Southern	79.7	67.1	3.5	6.8	2.4	4.5	0.2	4.1	7.7	58.9	0.2	0.0	2.0	1,392
Central	98.0	93.2	47.3	43.3	15.9	13.7	0.5	14.4	5.8	17.8	4.4	0.3	2.6	1,368
Education														
No education	58.9	47.1	3.6	0.9	1.5	4.2	0.2	0.1	4.7	33.2	0.7	0.1	1.6	3,332
Primary incomplete	96.0	89.5	18.4	22.1	7.7	11.2	0.3	6.0	6.7	33.9	3.2	0.1	2.1	786
Primary complete	99.3	94.8	43.2	53.0	21.2	10.9	0.8	22.4	5.2	19.2	1.8	0.2	2.7	435
Secondary+	99.9	98.3	69.5	75.3	26.0	15.4	0.7	29.5	4.1	15.5	5.6	0.1	3.4	501
Total	72.2	62.9	15.9	16.1	6.6	7.0	0.3	5.8	5.0	30.3	1.7	0.1	2.1	5,054

Note: Mean number of sources is based on respondents who have heard of AIDS. Figures in parentheses are based on 25 to 49 women.

Table 10.5.2 Knowledge of AIDS and sources of AIDS information: men

Percentage of men who have ever heard of AIDS, percentage who received information about AIDS from specific sources, and mean number of sources of information about AIDS, by selected background characteristics, Eritrea 1995

		Source of AIDS information											
Background characteristic	Ever heard of AIDS	Radio	TV	News-paper	Pamph-let	Health worker	Mosque/ church	School	Com-munity meet-ing	Friend/ Rela-tive	Work place	Mean number of sources	Number of men
Age													
15-19	89.4	78.4	34.1	41.6	27.2	2.5	0.0	28.0	4.4	31.8	0.3	2.8	237
20-24	93.2	87.7	40.2	53.7	27.6	7.5	1.0	23.4	9.0	22.0	2.2	2.9	142
25-29	94.7	83.8	35.2	46.9	24.3	9.9	2.2	5.4	11.5	37.3	6.7	2.8	127
30-39	87.5	79.7	21.3	32.6	20.9	12.8	0.6	2.0	14.6	37.3	5.5	2.6	227
40-49	86.6	73.5	21.5	23.5	15.6	8.0	1.4	0.6	13.0	47.6	7.8	2.5	231
50-59	82.8	64.6	14.1	15.2	7.6	7.9	1.0	0.5	10.8	43.2	3.9	2.0	150
Current marital status													
Never married	91.7	83.1	41.1	50.2	28.8	5.5	0.4	26.5	5.1	29.0	1.7	3.0	390
Had sex	97.1	94.4	58.6	72.4	29.7	10.5	0.0	23.5	6.1	25.5	2.7	3.3	65
Never had sex	90.6	80.8	37.6	45.7	28.6	4.5	0.4	27.1	4.9	29.7	1.4	2.9	324
Currently married	87.0	74.0	19.6	25.9	16.0	9.3	1.0	1.4	13.5	41.6	6.1	2.4	675
Formerly married	(86.4)	(83.5)	(19.6)	(30.4)	(18.9)	(8.9)	(4.8)	(1.5)	(13.0)	(40.3)	(2.8)	(2.6)	50
Residence													
Urban	99.1	93.8	62.2	72.2	37.6	12.5	1.5	19.8	9.7	30.5	10.4	3.5	356
Asmara	100.0	94.6	75.9	79.1	41.1	13.3	1.6	21.5	8.2	24.4	12.3	3.7	229
Other towns	97.3	92.4	37.5	59.8	31.2	11.0	1.3	16.6	12.4	41.6	6.8	3.2	127
Rural	83.7	70.0	10.6	17.0	12.6	5.8	0.7	5.7	10.9	40.2	1.6	2.1	758
Zone													
Southern Red Sea	92.8	43.2	17.7	16.3	1.3	2.5	0.0	7.5	1.3	62.3	1.3	1.7	39
Northern Red Sea	89.4	76.2	16.7	21.5	17.7	9.4	0.8	8.0	9.8	55.1	3.3	2.4	110
Anseba	89.7	76.8	7.7	24.2	8.2	8.7	1.0	5.6	9.1	47.4	1.9	2.1	133
Gash-Barka	67.2	53.8	8.4	19.5	21.5	6.4	1.8	1.2	15.7	41.8	5.9	2.6	233
Southern	92.3	82.7	10.7	18.7	8.5	3.5	0.1	11.2	8.3	27.4	0.1	1.9	286
Central	100.0	95.7	69.2	71.8	39.8	12.9	1.2	19.0	10.7	28.6	9.0	3.6	312
Education													
No education	76.9	58.1	3.8	5.3	6.1	5.1	0.8	0.0	9.3	43.0	1.7	1.7	520
Primary incomplete	97.2	90.9	23.4	33.3	19.6	7.8	1.4	6.7	13.4	33.3	3.9	2.4	243
Primary complete	100.0	98.5	45.4	69.9	35.8	7.3	1.0	20.9	11.5	34.0	9.5	3.3	136
Secondary+	100.0	96.4	75.9	84.8	47.2	15.2	0.6	31.9	9.6	29.2	8.2	4.0	215
Total	88.6	77.6	27.1	34.6	20.6	7.9	0.9	10.2	10.5	37.1	4.4	2.6	1,114

Note: Mean number of sources is based on respondents who have heard of AIDS. Figures in parentheses are based on 25 to 49 men.

and men. Compared with those living in urban areas, women and men in rural areas have a lower level of knowledge. Regarding zonal differentials in knowledge of AIDS, awareness of AIDS is almost universal in the Central Zone; however, the Gash-Barka Zone has the lowest awareness of any zone: 41 percent of women and 67 percent of men are aware of the disease. In the remaining zones knowledge of AIDS is around 90 percent among men and around 60 percent among women except in the Southern Zone where 80 percent of women are aware of AIDS. Virtually all women and men who have some education know about AIDS, whereas among the uneducated, only 59 percent of women and 77 percent of men know of AIDS.

Sources of AIDS Information

Radio is the most frequently mentioned source of knowledge about AIDS: 63 percent of women and 78 percent of men said they had learned about AIDS from radio (see Tables 10.5.1 and 10.5.2). The next most mentioned source of information for both women and men is friends and relatives (30 percent and 37 percent, respectively, for women and men). Television and newspapers are equally important sources of AIDS information for women (16 percent each); for men, newspapers are a more important source (35 percent) than television (27 percent). Pamphlets as source of information on AIDS show a marked difference between women and men, with 7 percent of women and 21 percent of men receiving information from pamphlets. Health workers were mentioned as information sources by a small proportion of men and women (7-8 percent). Less than 1 percent of women and men received AIDS information from churches or mosques.

Knowledge of Ways to Avoid HIV/AIDS

Tables 10.6.1 and 10.6.2 show the percentage of respondents who know specific ways to avoid contracting HIV/AIDS. The percentages are based on women and men who have heard of AIDS. Five percent of women and 2 percent of men reported that there was no way to avoid getting AIDS and 19 percent of women and 14 percent of men could not cite any way to avoid HIV/AIDS. In addition, 5 percent of women and men had misinformation about ways to avoid AIDS.

By far the most frequently cited way to avoid AIDS was to restrict sexual activity to one partner; 47 percent of women and 41 percent of men mentioned this. The next most mentioned way to avoid AIDS was the use of condoms, reported by around 35 percent of women and men. Twenty-two to 24 percent of women and a slightly higher proportion of men cited abstaining from sex and avoiding sex with prostitutes as ways to avoid HIV/AIDS. Avoidance of injections was cited by one-quarter of women and more than one-third of men.

Protected sex, or use of condoms as a way to avoid HIV/AIDS, follows expected patterns by level of education and residence. For both women and men, using condoms is less commonly reported as a means of preventing AIDS by respondents who have little or no education or by those who live in rural areas. Restricting sexual relations to one partner to avoid AIDS is also less likely to be mentioned by rural than urban men, although there is no difference by residence among women.

Table 10.6.1 Knowledge of ways to avoid AIDS: women

Percentage of women who have heard of AIDS and who know of specific ways to avoid AIDS and percentage with misinformation, by selected background characteristics, Eritrea 1995

Background characteristic	No way to avoid AIDS	Ways to avoid AIDS: Abstain from sex	Use condoms	Have only one sexual partner	Avoid sex with prostitutes	Avoid homosexuals	Avoid transfusions	Avoid injections	Avoid kissing	Avoid mosquito bites	Avoid traditional healers	Other ways	Don't know any way	Percentage with misinformation	Number of women
Age															
15-19	4.6	21.9	40.4	46.8	23.6	1.4	17.5	26.4	2.3	0.7	0.9	3.5	15.7	7.2	926
20-24	4.3	23.4	45.3	50.4	21.9	1.0	15.8	25.9	0.7	0.1	1.3	2.0	17.3	4.1	630
25-29	5.7	21.9	37.7	49.0	25.0	1.4	11.9	21.6	0.8	0.0	0.9	2.6	17.9	4.1	543
30-39	3.9	21.7	31.0	48.6	22.4	0.9	14.4	24.0	1.0	0.2	1.2	3.4	20.9	5.6	812
40-49	5.6	23.1	19.8	42.5	25.1	0.6	12.4	20.9	0.5	0.4	0.4	2.3	25.1	3.6	738
Current marital status															
Never married	3.0	28.9	51.0	48.5	22.4	1.2	17.8	28.3	3.0	0.8	1.5	2.7	9.9	7.7	874
Currently married	5.8	18.9	27.8	46.8	23.9	0.9	14.5	23.1	0.6	0.2	0.7	2.7	24.0	4.1	2,234
Formerly married	3.5	26.0	35.9	47.5	23.9	1.4	10.0	20.4	0.4	0.0	0.8	3.7	15.4	5.0	541
Residence															
Urban	1.3	34.2	51.6	47.9	20.7	1.5	18.0	29.3	2.2	0.4	1.4	3.2	7.4	6.9	1,601
Asmara	0.9	37.2	53.3	48.6	19.3	1.8	19.9	32.7	2.7	0.6	1.7	3.5	4.1	8.1	1,045
Other towns	2.0	28.6	48.4	46.6	23.4	0.9	14.5	23.0	1.1	0.1	0.9	2.5	13.5	4.6	557
Rural	7.5	13.1	21.3	46.8	25.8	0.7	12.0	19.8	0.3	0.3	0.5	2.6	28.7	3.7	2,048
Zone															
Southern Red Sea	10.9	44.5	47.5	16.1	5.3	0.6	2.3	4.7	0.6	0.0	1.8	4.8	30.6	6.5	86
Northern Red Sea	5.9	24.5	22.4	28.3	20.0	1.0	5.3	11.7	0.0	0.5	0.6	1.0	40.4	2.1	318
Anseba	2.8	16.9	20.1	48.6	9.6	0.2	8.4	10.4	0.7	0.2	0.8	1.8	27.8	3.4	404
Gash-Barka	7.4	18.7	30.0	44.3	26.4	0.2	11.2	22.0	0.4	0.0	1.0	1.7	29.0	2.9	393
Southern	8.4	10.5	27.6	48.8	33.6	1.0	19.3	29.7	0.8	0.4	0.5	3.9	23.5	5.5	1,109
Central	1.0	33.0	48.1	53.0	20.6	1.7	16.6	28.0	2.1	0.4	1.3	3.0	4.9	6.6	1,340
Education															
No education	7.7	16.2	16.1	40.1	23.6	0.4	11.5	19.3	0.2	0.2	0.5	2.7	31.6	3.6	1,962
Primary incomplete	2.5	25.4	45.3	54.8	26.2	1.6	14.1	25.5	1.3	0.4	0.9	2.1	9.6	4.6	755
Primary complete	0.5	29.7	60.8	55.5	22.1	0.9	18.7	28.8	2.3	0.8	1.4	2.5	2.7	6.8	432
Secondary+	0.1	35.5	67.9	56.8	20.6	2.9	24.3	35.5	3.6	0.3	2.1	4.6	0.5	10.1	500
Total	4.8	22.4	34.6	47.3	23.5	1.1	14.6	24.0	1.1	0.3	0.9	2.8	19.4	5.1	3,649

Table 10.6.2 Knowledge of ways to avoid AIDS: men

Percentage of men who have heard of AIDS and who know of specific ways to avoid AIDS and percentage with misinformation, by selected background characteristics, Eritrea 1995

Background characteristic	No way to avoid AIDS	Ways to avoid AIDS: Abstain from sex	Use condoms	Have only one sexual partner	Avoid sex with prostitutes	Avoid homosexuals	Avoid transfusions	Avoid injections	Avoid kissing	Avoid mosquito bites	Avoid traditional healers	Other ways	Don't know any way	Percentage with misinformation	Number of men
Age															
15-19	2.5	25.4	45.9	39.8	17.7	1.9	23.3	33.0	0.0	0.0	3.5	1.2	15.1	4.7	212
20-24	2.1	36.4	55.0	48.5	22.1	5.2	28.6	36.4	4.3	0.5	3.0	1.1	11.3	6.5	132
25-29	0.6	29.7	43.4	41.6	31.8	3.6	29.4	35.0	0.0	0.0	2.8	2.1	10.9	4.3	121
30-39	0.0	32.0	30.9	44.1	27.5	1.3	31.8	43.3	0.0	0.9	2.2	1.3	11.0	4.4	199
40-49	2.5	22.4	26.9	33.8	31.2	1.0	20.6	32.4	1.4	0.0	3.6	1.9	18.2	6.9	200
50-59	1.5	26.2	13.8	38.8	38.9	2.6	18.5	29.7	0.7	0.0	3.0	0.7	16.0	3.7	124
Marital status															
Never married	1.7	29.6	52.1	44.7	21.4	3.3	26.7	36.1	0.6	0.2	3.0	1.3	11.3	4.6	357
Currently married	1.6	27.1	25.8	39.8	29.6	1.9	23.7	34.8	1.3	0.3	3.1	1.6	16.1	5.8	587
Formerly married	(0.0)	(31.3)	(39.6)	(21.3)	(47.1)	(1.7)	(34.6)	(34.2)	(0.0)	(0.0)	(1.7)	(0.0)	(8.5)	(1.7)	43
Residence															
Urban	0.4	31.1	53.6	51.4	25.6	3.0	35.9	41.6	1.4	0.2	4.0	1.4	3.8	6.4	352
Asmara	0.6	31.0	53.5	53.8	24.1	3.5	39.9	44.6	1.3	0.3	4.1	1.9	2.8	7.3	229
Other towns	0.0	31.4	53.8	47.0	28.5	2.0	28.5	36.1	1.7	0.0	3.7	0.5	5.6	4.8	124
Rural	2.2	26.6	26.1	34.8	28.4	2.0	19.4	31.7	0.7	0.3	2.5	1.4	19.6	4.5	635
Zone															
Southern Red Sea	0.0	64.5	50.5	16.4	1.3	1.3	3.0	2.7	0.0	0.0	0.0	0.0	13.9	0.0	36
Northern Red Sea	0.9	13.2	25.8	42.7	42.0	0.0	19.0	35.5	1.6	0.0	1.0	1.3	7.9	3.1	99
Anseba	1.5	14.2	30.5	37.6	62.1	7.7	32.7	54.3	4.1	1.5	10.1	3.6	11.4	16.7	120
Gash-Barka	1.8	26.9	13.8	19.3	29.5	0.0	31.9	42.9	0.0	0.0	0.0	2.5	25.9	2.5	157
Southern	3.3	36.6	31.3	36.7	6.5	0.0	3.5	4.9	0.0	0.0	0.7	0.0	24.1	0.7	263
Central	0.5	27.7	54.5	58.3	29.0	4.3	42.1	53.4	0.9	0.2	4.8	1.4	2.4	7.1	312
Education															
No education	3.2	19.4	12.2	23.7	35.2	1.2	14.2	26.3	0.4	0.0	2.1	1.8	27.7	4.0	400
Primary incomplete	1.1	38.1	38.9	44.9	21.1	0.8	21.3	30.9	0.6	0.8	2.0	1.1	11.2	4.5	237
Primary complete	0.0	30.6	60.3	58.4	23.1	7.3	37.1	48.3	2.7	0.5	6.5	0.5	0.5	8.9	136
Secondary+	0.0	32.2	61.4	56.7	22.5	3.1	42.8	48.4	1.3	0.0	3.7	1.7	0.1	5.7	215
Total	1.6	28.2	35.9	40.7	27.4	2.4	25.3	35.2	1.0	0.3	3.0	1.4	14.0	5.2	987

Note: Figures in parentheses are based on 25 to 49 men.

Knowledge of AIDS-related Health Issues

Table 10.7.1 and Table 10.7.2 show the percent distribution of women and of men who are aware of AIDS by their opinions on certain AIDS-related health issues, according to selected background characteristics. The data were collected on two health issues from women and on four health issues from men.

Almost 60 percent of women and 65 percent of men know that it is possible for a healthy-looking person to be infected with the AIDS virus. However, more than one-quarter of women and men said they didn't know. Only 77 percent of women believe that AIDS is almost always a fatal disease, compared with 94 percent of men. Higher proportions of women and men who are unmarried, who live in urban areas, and in the Central Zone know that a healthy-looking person can have AIDS and that a person with AIDS almost always dies from the disease.

Table 10.7.1 Awareness of AIDS-related health issues: women

Percent distribution of women who have heard of AIDS by responses to questions on AIDS-related health issues, according to selected background characteristics, Eritrea 1995

Background characteristic	Can a healthy-looking person have the AIDS virus?			Is AIDS a fatal disease?				Number of women
	Yes	No	Don't know	Almost never	Sometimes	Almost always	Don't know	
Age								
15-19	67.3	15.0	17.4	0.7	14.8	78.0	6.5	926
20-24	67.1	12.7	19.8	1.5	13.0	77.4	7.9	630
25-29	57.3	13.9	28.8	0.6	15.1	77.0	7.2	543
30-39	55.1	12.2	32.6	0.4	14.2	75.2	10.1	812
40-49	45.5	15.2	39.2	0.6	10.8	77.2	11.4	738
Current marital status								
Never married	75.9	12.1	11.6	0.5	13.2	82.8	3.4	874
Currently married	51.9	14.2	33.8	0.7	13.9	74.6	10.7	2,234
Formerly married	58.8	15.4	25.7	1.2	12.9	77.3	8.6	541
Residence								
Urban	76.9	9.9	12.9	0.5	10.8	85.1	3.6	1,601
Asmara	81.9	8.6	9.2	0.4	10.9	86.8	1.9	1,045
Other towns	67.6	12.3	20.0	0.7	10.7	81.9	6.7	557
Rural	44.4	17.0	38.6	0.9	15.8	70.6	12.6	2,048
Zone								
Southern Red Sea	40.9	25.0	34.1	0.6	13.9	70.7	14.9	86
Northern Red Sea	40.2	11.0	48.9	0.8	9.6	75.1	14.5	318
Anseba	47.5	17.7	34.6	1.8	11.8	77.6	8.8	404
Gash-Barka	41.5	17.0	41.5	1.6	29.2	45.8	23.4	393
Southern	53.3	15.3	31.4	0.4	12.2	79.2	8.1	1,109
Central	77.0	10.6	12.1	0.4	11.7	84.9	2.9	1,340
Education								
No education	40.1	17.0	42.9	1.1	14.9	70.2	13.8	1,962
Primary incomplete	70.8	14.3	14.7	0.6	13.0	81.6	4.8	755
Primary complete	84.3	9.4	5.9	0.2	13.6	84.6	1.4	432
Secondary+	91.0	4.9	3.7	0.1	9.3	90.0	0.5	500
Total	58.7	13.9	27.3	0.7	13.6	77.0	8.6	3,649

Table 10.7.2 Awareness of AIDS-related health issues: men

Percent distribution of men who have heard of AIDS by responses to questions on AIDS-related health issues, according to selected background characteristics, Eritrea 1995

Background characteristic	Can a healthy-looking person have the AIDS virus?			Is AIDS a fatal disease?			Can AIDS be cured?			Can AIDS be transmitted from mother to child?			Do you know someone with AIDS			Number of men
	Yes	No	Don't know	Almost never	Some-times	Almost always	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know	
Age																
15-19	71.3	12.0	16.7	1.4	4.2	94.4	0.7	87.4	11.9	81.7	6.4	10.8	7.3	83.3	9.1	212
20-24	78.3	6.2	15.0	2.1	7.3	90.6	3.4	91.0	5.6	86.6	2.5	8.6	12.0	78.1	9.9	132
25-29	71.4	2.6	26.0	2.3	4.8	92.9	2.6	87.1	10.2	86.3	0.4	12.2	12.1	69.5	18.5	121
30-39	64.7	5.1	30.2	1.0	2.0	96.9	3.0	83.1	13.9	80.7	2.8	16.5	7.4	81.0	11.6	199
40-49	60.9	8.7	30.4	4.5	3.1	92.4	6.9	75.6	17.5	70.7	7.5	21.0	9.7	77.4	12.9	200
50-59	41.6	7.1	51.3	0.0	7.1	92.9	1.4	74.8	23.8	74.0	3.1	22.9	7.9	72.3	19.9	124
Marital duration																
Never married	77.2	7.7	14.9	0.9	3.1	96.1	1.4	90.0	8.6	84.9	4.2	9.4	9.0	81.1	9.7	357
Currently married	58.7	7.0	34.3	2.8	5.4	91.8	4.1	78.9	16.9	76.5	4.3	18.7	9.5	76.5	13.9	587
Formerly married	(51.8)	(10.2)	(38.0)	(0.0)	(1.7	(98.3)	(2.7)	(81.1)	(16.2)	(76.5)	(3.1)	(20.5)	(4.0)	(68.3)	(27.6)	43
Residence																
Urban	87.4	3.3	9.1	0.5	2.3	97.2	3.4	92.1	4.5	93.3	1.7	4.8	13.8	80.0	6.0	352
Asmara	89.9	2.5	7.6	0.6	2.5	96.8	4.1	92.4	3.5	93.7	1.6	4.4	16.5	79.1	4.4	229
Other towns	82.7	4.8	11.9	0.2	1.8	97.9	2.0	91.5	6.5	92.6	1.9	5.5	9.0	81.7	8.8	124
Rural	52.7	9.6	37.7	2.8	5.6	91.6	2.9	78.0	19.1	71.9	5.6	21.3	6.5	76.6	16.9	635
Zone																
Southern Red Sea	61.2	10.7	28.1	0.0	1.6	98.4	9.6	77.8	12.6	49.7	7.8	40.9	18.2	80.2	1.6	36
Northern Red Sea	53.6	6.2	40.2	0.0	0.9	99.1	2.8	87.2	10.0	82.5	2.0	14.4	4.5	68.3	27.1	99
Anseba	46.2	3.1	50.1	0.0	1.1	98.9	1.3	90.9	7.8	89.6	0.7	9.7	3.6	54.6	41.8	120
Gash-Barka	44.3	12.9	42.8	0.8	2.0	97.2	1.1	69.7	29.3	60.7	2.7	34.8	4.1	92.1	3.4	157
Southern	62.5	11.3	26.2	6.4	11.2	82.4	4.4	73.9	21.7	71.6	10.7	17.0	9.0	87.8	3.3	263
Central	89.0	2.9	8.1	0.5	2.6	97.0	3.0	93.7	3.3	94.3	1.2	4.0	14.2	74.0	11.8	312
Education																
No education	36.6	11.4	52.1	3.5	5.6	91.0	4.1	68.3	27.6	61.7	6.1	31.3	3.6	75.1	21.2	400
Primary incomplete	69.0	10.0	21.0	1.2	4.7	94.1	2.1	89.8	8.1	83.3	5.8	9.6	9.6	80.8	9.6	237
Primary complete	90.7	2.1	7.1	2.3	4.2	93.5	1.7	94.1	4.2	96.1	0.7	3.1	13.5	76.7	9.8	136
Secondary+	97.6	0.4	1.6	0.0	2.0	98.0	3.1	96.1	0.8	97.9	1.2	0.0	15.9	80.4	3.5	215
Total	65.1	7.4	27.5	2.0	4.4	93.6	3.1	83.0	13.9	79.5	4.2	15.4	9.1	77.8	13.0	987

Note: Figures in parentheses are based on 25 to 49 men.

Four-fifths of men know that the AIDS virus can be transmitted from mother to child during pregnancy or childbirth and a slightly higher proportion know that AIDS cannot be cured at this time (see Table 10.7.2). The differentials for knowledge of these topics are similar to those for knowledge of whether or not AIDS is a fatal disease.

Personal Knowledge of Someone with AIDS

The EDHS asked men if they personally knew someone who had AIDS or had died of AIDS. Overall, 9 percent of men reported that they did (see Table 10.7.2). Men living in urban areas, in the Southern Red Sea and Central Zones, and those who had completed primary school or higher were more likely to know someone with AIDS than those living in rural areas or other zones, and those with little or no education.

10.4 Perception of Risk of Getting HIV/AIDS

Women and men who had heard of AIDS were asked whether their "chances of getting the AIDS virus" were great, moderate, small, or nil. Interviewers then followed up by asking men why they thought their chances were great/moderate, on one hand, or small/nil on the other.

Table 10.8 shows that 93 percent of women and 99 percent of men think that they have little or no chance of being infected with HIV/AIDS. Only 7 percent of women and 1 percent of men said that their chances of getting infected with AIDS were moderate to great.

The EDHS made use of the fact that women and men were interviewed separately to link data on currently married men and their wives living in the same household. This makes it possible to look at couples as units of study. Table 10.9 shows that among couples who have heard about AIDS, 81 percent share a similar view that they have no risk of getting AIDS. However, a greater proportion of husbands (93 percent) than wives (85 percent) reported that they had no risk of getting AIDS. Almost all husbands reported that their risk of getting infected was small or nil, while 6 percent of wives reported that their risk of getting AIDS was moderate to great. This fear—reflected disproportionately in wives' perceptions of risk—is probably based on information about marital relations not captured in these data.

Reason for Perception of Small/No Risk by Men

Table 10.10 presents information on reasons why men perceive their risk of getting the AIDS virus as low or nil. (Information on this topic was not collected from female respondents.) The majority of men (56 percent) say their risk of contracting AIDS is low because they limit the number of sexual partners, while one-third report that they avoid injections, and one-quarter say they abstain from sex.

Men in urban areas stated that their risk was low or nil because they were abstaining from sex altogether (33 percent), sticking to one partner (47 percent), using condoms (16 percent), and having no blood transfusions (31 percent) and no injections (36 percent). Abstaining from sex, no injections, no blood transfusions, and using condoms are mentioned more often by never-married men, while limiting partners is mentioned more often by men who are currently in union.

Among never-married men, more rural men than urban men abstain from sex to avoid the risk of getting AIDS, although the overall proportion abstaining is lower in rural than in urban areas because there is a higher proportion of never-married men in urban areas. On the other hand, compared with rural areas, a higher proportion of never-married men and currently married men in urban areas said they had small/no risk of getting AIDS because they use condoms.

Table 10.8 Perception of the risk of getting AIDS

Percent distribution of women and men who know about AIDS by their perception of the risk of getting AIDS, according to selected background characteristics, Eritrea 1995

Background characteristic	Perceived risk of getting AIDS: women								Perceived risk of getting AIDS: men					
	No risk at all	Small	Mod-erate	Great	Has AIDS	Don't know	Total	Number of women	No risk at all	Small	Mod-erate	Great	Total	Number of men
Age														
15-19	88.4	4.7	4.5	2.3	0.1	0.0	100.0	926	93.1	6.3	0.0	0.7	100.0	212
20-24	86.9	6.1	4.4	2.7	0.0	0.0	100.0	630	89.9	8.3	1.8	0.0	100.0	132
25-29	83.9	8.2	6.6	1.3	0.0	0.0	100.0	543	89.7	7.9	2.1	0.3	100.0	121
30-39	86.8	4.9	5.7	1.9	0.6	0.1	100.0	812	91.5	8.2	0.4	0.0	100.0	199
40-49	88.9	4.9	4.3	1.7	0.0	0.2	100.0	738	93.9	5.8	0.0	0.4	100.0	200
50-59	NA	NA	NA	NA	NA	NA	NA	NA	91.8	8.2	0.0	0.0	100.0	124
Marital status														
Never married	88.2	4.2	4.2	3.3	0.1	0.0	100.0	874	90.1	8.2	1.1	0.6	100.0	357
Currently married	87.3	5.6	5.4	1.4	0.2	0.1	100.0	2,234	92.6	7.0	0.3	0.1	100.0	587
Formerly married	85.5	7.2	4.9	2.3	0.0	0.1	100.0	541	(97.0)	(3.0)	(0.0)	(0.0)	100.0	43
No. of sexual partners other than wife in last 12 months														
0	NA	NA	NA	NA	NA	NA	NA	NA	93.0	6.7	0.3	0.0	100.0	899
1	NA	NA	NA	NA	NA	NA	NA	NA	80.8	14.6	1.5	3.1	100.0	47
2-3	NA	NA	NA	NA	NA	NA	NA	NA	(76.9)	(14.8)	(5.6)	(2.8)	100.0	26
Residence														
Urban	85.1	4.7	6.5	3.6	0.0	0.1	100.0	1,601	86.4	11.6	1.3	0.7	100.0	352
Asmara	85.0	4.9	6.2	3.8	0.1	0.0	100.0	1,045	86.1	11.7	1.9	0.3	100.0	229
Other towns	85.4	4.3	6.9	3.2	0.0	0.2	100.0	557	87.0	11.3	0.3	1.5	100.0	124
Rural	88.9	6.2	3.9	0.8	0.2	0.0	100.0	2,048	95.0	4.9	0.1	0.0	100.0	635
Zone														
Southern Red Sea	64.3	6.1	7.7	22.0	0.0	0.0	100.0	86	2.7	93.3	0.0	4.0	100.0	36
Northern Red Sea	90.0	4.8	4.3	0.0	0.6	0.3	100.0	318	96.8	2.3	0.9	0.0	100.0	99
Anseba	98.0	0.2	1.8	0.0	0.0	0.0	100.0	404	100.0	0.0	0.0	0.0	100.0	120
Gash-Barka	81.0	12.1	5.0	1.7	0.0	0.2	100.0	393	99.3	0.2	0.2	0.2	100.0	157
Southern	88.2	5.6	5.6	0.3	0.3	0.0	100.0	1,109	96.7	3.3	0.0	0.0	100.0	263
Central	85.8	5.3	5.5	3.4	0.1	0.0	100.0	1,340	89.8	8.6	1.4	0.2	100.0	312
Education														
No education	87.7	6.3	4.5	1.3	0.3	0.1	100.0	1,962	92.7	6.9	0.4	0.0	100.0	400
Primary incomplete	88.2	4.3	6.0	1.4	0.0	0.1	100.0	755	96.2	3.7	0.2	0.0	100.0	237
Primary complete	85.0	4.4	6.0	4.6	0.0	0.0	100.0	432	91.5	8.3	0.0	0.3	100.0	136
Secondary+	85.9	5.4	4.9	3.6	0.1	0.0	100.0	500	86.1	11.2	1.7	1.0	100.0	215
Total	87.2	5.5	5.0	2.0	0.2	--	100.0	3,649	91.9	7.3	0.6	0.3	100.0	987

Note: Total includes 19 men who had four or more sexual partners or for whom information on sexual partners was missing.
NA = Not applicable
-- Less than 0.05 percent

Table 10.9 Perception of the risk of getting AIDS among couples

Percent distribution of couples who have heard of AIDS by husband's and wife's perceptions of the risk of getting AIDS, Eritrea 1995

Perceived risk of getting AIDS: wife	Perceived risk of getting AIDS: husband					Number of couples
	No risk at all	Small	Moderate	Great	Total	
No risk at all	80.8	3.8	0.1	0.1	84.7	302
Small	7.7	1.0	0.0	0.0	8.7	31
Moderate	3.9	0.5	0.0	0.0	4.4	16
Great	0.7	1.3	0.0	0.0	2.0	7
Don't know	0.2	0.0	0.0	0.0	0.2	1
Total	93.2	6.6	0.1	0.1	100.0	-
Number of couples	333	24	0	0	-	357

Note: Percentages are based on 357 couples.

Table 10.10 Reason for perception of small/no risk of getting AIDS

Among men who think they have small or no risk of getting AIDS, the percentage giving specific reasons for that perception, by marital status, according to residence, Eritrea 1995

Marital status	Abstain from sex	Use condoms	One sex partner/ limit partners	Spouse has no other partner	Avoid prosti-titutes	No homo-sexual contact	No blood trans-fusions	No injec-tions	Other	Number of men
URBAN										
Never married	57.2	21.1	12.5	2.1	7.8	2.1	29.9	34.5	2.0	174
Currently married	6.1	8.1	86.0	11.7	11.2	2.2	32.1	36.7	3.0	161
Total	32.5	16.0	47.1	6.5	9.5	2.5	31.4	35.7	2.4	345
RURAL										
Never married	63.2	8.6	8.3	0.6	9.2	1.3	23.6	31.8	3.8	178
Currently married	5.0	4.2	84.6	16.4	17.4	1.4	17.1	25.7	4.1	424
Total	21.5	5.5	60.5	11.5	16.1	1.3	19.2	27.4	3.8	634
TOTAL										
Never married	60.3	14.8	10.4	1.3	8.5	1.7	26.7	33.2	2.9	351
Currently married	5.3	5.3	85.0	15.1	15.7	1.6	21.2	28.7	3.8	585
Formerly married	(13.4)	(16.8)	(30.2)	(4.6)	(31.6)	(3.2)	(28.7)	(29.0)	(0.0)	43
Total	25.4	9.2	55.8	9.7	13.8	1.7	23.5	30.3	3.3	979

Note: Total in urban areas includes 16 formerly married men; total in rural areas includes 23 formerly married men who are not shown separately.

10.5 Behavior Change

Women and men who had heard of AIDS were asked whether or not they had changed their behavior since they learned of the disease. If they responded positively they were asked what they did. Table 10.11.1 and Table 10.11.2 and Figure 10.1 show that 58 percent of women and 33 percent of men said that they had not changed their behavior. One-third of men and almost no women mentioned other changed which were not sex related. The data show that respondents living in rural areas and those with no education are more likely to have *not* changed their behavior (in response to the perceived risk of AIDS) than respondents living in urban areas and those who are more educated. About 69 percent of women in rural areas did not change their behavior, compared with 44 percent in urban areas; at the same time, 41 percent of men in rural areas did not change their behavior, compared with 19 percent in urban areas.

The most frequently reported change in behavior among women was to stop getting injections (17 percent), followed by retaining virginity (11 percent). The most reported changes among men were to restrict themselves to one partner (29 percent), followed by retaining virginity (25 percent), and stopping injections (24 percent). Among other changes, 10 percent of women and 7 percent of men asked their spouse to be faithful, only 1 percent of women and 7 percent of men began using condoms, and 3 percent of women and 4 percent of men stopped having sex.

When women reported that their risk of getting AIDS was small or nil, they were more likely to have not changed their sexual behavior; similarly, fewer changes were made by those who did not believe AIDS is almost always fatal. A higher proportion of women who perceived their risk of getting AIDS as moderate made behavioral changes than those who perceived their risk of getting infected as great. For men, data cannot be analyzed by degree of perceived risk because only a few men reported their risk of getting AIDS was moderate or great. Among men who perceived that they had small/no risk, those who believe that AIDS is almost always fatal made more changes in sexual behavior than those who believe that AIDS is not always fatal or have no opinion.

Table 10.11.1 AIDS prevention behavior: women

Percentage of women who have heard of AIDS by changes in behavior in order to avoid AIDS, according to perception of AIDS risk and selected background characteristics, Eritrea 1995

Background characteristic	No change in behavior	Change in behavior to avoid AIDS: Kept virginity	Stopped sex	Began using condoms	Restricted to one partner	Fewer partners	Asked spouse to be faithful	No homosexual contact	Avoid injections	Avoid unsterilized instruments	Non-sexual behavior	Number of women
Perception of AIDS risk												
Among those who believe AIDS always fatal												
Small/no risk	57.7	11.6	2.7	0.8	6.8	0.2	11.0	0.3	17.9	5.2	0.1	2,604
Moderate risk	22.8	6.0	6.4	4.0	20.8	2.0	12.5	0.0	35.6	5.5	0.0	143
Great risk/has AIDS	42.2	13.9	3.4	0.0	21.3	0.0	2.2	1.0	20.5	1.2	1.2	62
Among those who do not believe AIDS always fatal, or don't know												
Small/no risk	69.5	7.7	2.1	0.6	10.7	0.5	5.8	0.0	8.0	1.0	0.1	780
Moderate risk	(32.5)	(8.9)	(3.3)	(1.8)	(17.8)	(4.2)	(21.8)	(0.0)	(24.2)	(1.8)	(0.0)	41
Great risk/has AIDS	57.3	10.3	0.0	4.2	15.6	7.9	7.9	0.0	10.3	4.2	4.2	18
Age												
15-19	50.8	27.5	0.7	0.4	4.0	0.0	6.5	0.5	15.9	5.9	0.0	926
20-24	56.7	12.8	1.1	1.7	10.2	0.6	10.7	0.2	16.7	4.0	0.3	630
25-29	56.4	5.3	3.1	1.5	11.6	0.9	13.4	0.2	19.1	3.6	0.1	543
30-39	62.4	1.8	3.9	0.9	10.3	0.6	10.6	0.1	17.4	4.0	0.2	812
40-49	66.0	0.7	4.9	0.5	8.9	0.3	10.2	0.1	14.5	3.0	0.2	738
Marital status												
Never married	39.1	43.7	0.9	0.6	1.4	0.1	0.7	0.6	21.6	7.5	0.2	874
Currently married	64.7	0.1	0.7	0.7	11.7	0.2	15.5	0.1	14.4	3.2	0.2	2,234
Formerly married	62.8	0.2	13.9	2.3	7.3	1.8	1.7	0.1	17.5	2.9	0.1	541
Residence												
Urban	44.2	17.3	4.3	1.8	10.3	0.3	8.0	0.5	26.7	7.8	0.3	1,601
Asmara	37.8	20.2	4.1	1.8	11.1	0.2	8.4	0.5	30.8	9.1	0.4	1,045
Other townss	56.3	11.8	4.7	1.8	8.8	0.6	7.3	0.7	18.9	5.2	0.0	557
Rural	69.3	5.3	1.5	0.2	7.2	0.5	11.4	0.0	8.6	1.4	0.1	2,048
Zone												
Southern Red Sea	25.1	17.4	13.8	2.9	32.8	0.0	11.0	0.0	0.0	0.6	0.0	86
Northern Red Sea	73.8	5.5	0.8	0.9	4.9	0.5	3.9	0.0	10.8	0.1	0.4	318
Anseba	79.6	9.2	1.0	0.5	0.2	0.0	1.0	0.5	9.2	3.5	0.0	404
Gash-Barka	62.7	3.7	4.4	1.1	15.9	2.6	12.7	0.4	11.5	1.5	0.0	393
Southern	61.6	4.9	1.2	0.3	6.6	0.0	17.6	0.0	12.3	3.4	0.0	1,109
Central	46.3	18.4	3.7	1.4	9.9	0.3	6.8	0.4	26.2	7.2	0.3	1,340
Education												
No education	68.0	2.0	2.6	0.4	8.3	0.5	11.7	0.1	10.7	1.7	0.2	1,962
Primary incomplete	58.9	11.6	3.0	1.5	8.9	0.6	8.4	0.2	16.4	4.1	0.0	755
Primary complete	42.4	26.3	2.8	1.7	7.9	0.3	6.5	0.3	23.8	8.3	0.0	432
Secondary+	32.9	29.0	2.5	1.6	9.6	0.0	8.3	0.8	33.5	10.6	0.4	500
Total	58.3	10.5	2.7	0.9	8.6	0.4	9.9	0.2	16.5	4.2	0.2	3,649

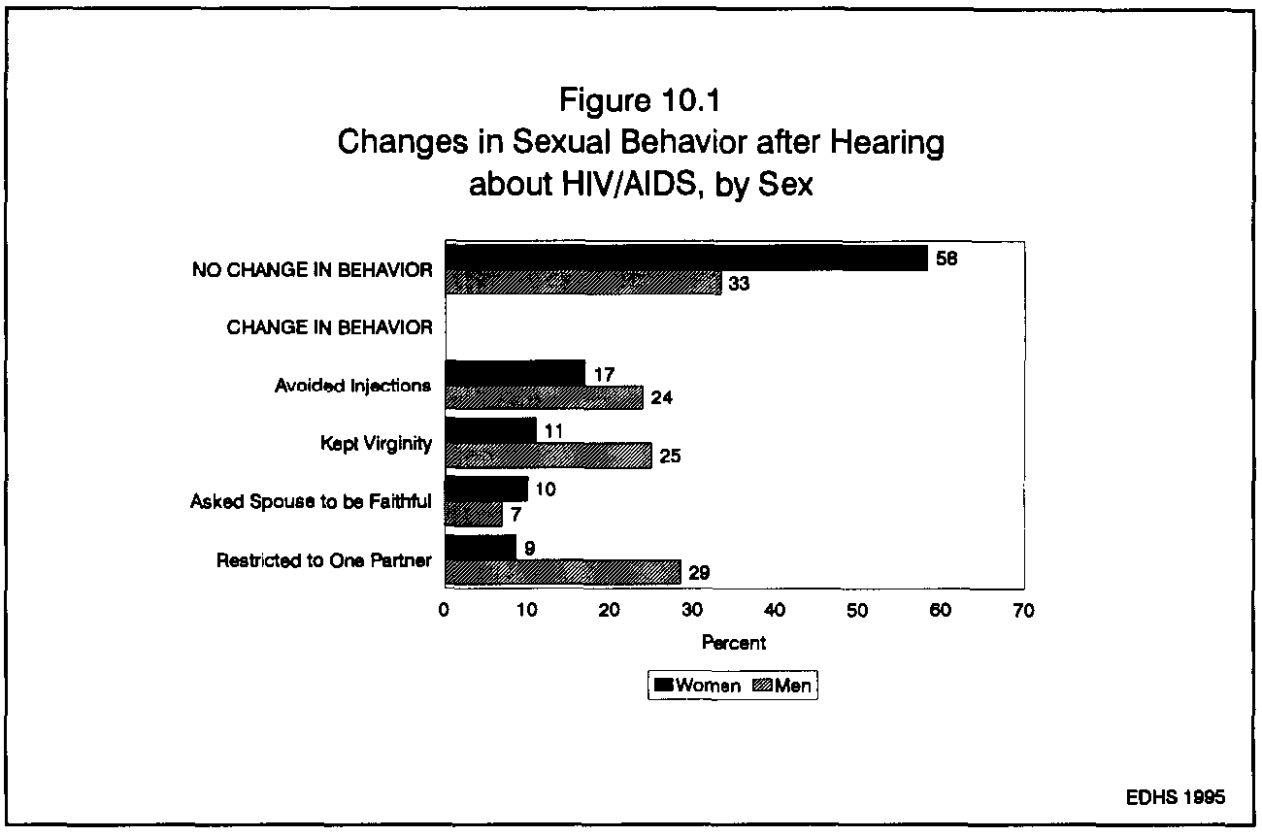
Note: The "no change" category includes those who say "don't know." Total includes three women who did not know about their risk status. Figures in parentheses are based on 25 to 49 women.

Table 10.11.2 AIDS prevention behavior: men

Percentage of men who have heard of AIDS by changes in behavior in order to avoid AIDS, according to perception of AIDS risk and selected background characteristics, Eritrea 1995

Background characteristic	No change in behavior	Change in behavior to avoid AIDS: Kept virginity	Stopped sex	Began using condoms	Restricted to one partner	Fewer partners	Asked spouse to be faithful	No homosexual contact	Avoid sex with prostitutes	Avoid injections	Avoid unsterilized instruments	Other sexual behavior	Non-sexual behavior	Number of men
Perception of AIDS risk as small/no risk														
AIDS always fatal	33.1	25.4	3.4	7.0	28.1	3.4	7.8	0.5	4.2	25.6	5.4	0.9	1.0	916
AIDS not always fatal or don't know	39.1	17.2	2.8	7.7	33.1	0.0	0.0	0.0	0.0	1.1	0.0	4.4	0.0	63
Age														
15-19	15.3	78.3	1.0	1.5	3.1	1.0	0.7	0.0	0.7	22.0	5.7	0.3	1.2	212
20-24	13.9	39.9	5.4	23.5	15.2	8.5	1.6	0.5	6.6	23.2	4.4	3.2	0.5	132
25-29	37.3	14.7	5.3	14.3	27.7	5.6	8.9	1.7	6.7	27.8	4.1	0.0	0.0	121
30-39	35.2	2.9	2.8	8.0	46.5	3.8	11.6	0.4	6.2	28.1	5.0	1.1	1.0	199
40-49	47.6	0.3	4.7	1.8	43.5	1.9	10.8	0.0	2.6	20.7	4.5	0.8	0.4	200
50-59	54.7	0.4	2.8	0.6	33.9	1.1	9.6	0.6	3.8	22.6	6.5	1.7	2.6	124
Marital status														
Never married	13.4	67.9	3.2	10.6	3.1	5.3	0.2	0.2	2.5	23.7	4.9	0.2	0.9	357
Currently married	44.0	0.1	3.1	4.5	44.6	2.0	11.7	0.4	4.5	24.2	5.4	1.7	1.0	587
Formerly married	(52.5)	(0.0)	(10.5)	(16.8)	(19.4)	(4.9)	(3.4)	(3.2)	(10.9)	(22.3)	(1.6)	(0.0)	(0.0)	43
Residence														
Urban	18.9	30.8	7.2	13.4	27.4	5.7	4.3	1.2	6.7	24.8	6.8	1.6	1.4	352
Asmara	13.3	34.5	7.6	13.6	28.8	5.1	4.1	1.3	8.9	28.2	7.0	1.9	2.2	229
Other townss	29.3	23.8	6.4	12.9	24.8	6.8	4.7	1.0	2.8	18.6	6.4	1.2	0.0	124
Rural	41.3	21.2	1.4	3.9	29.1	2.0	8.8	0.0	2.6	23.4	4.1	0.8	0.7	635
Zone														
Southern Red Sea	0.0	20.7	5.9	18.3	53.3	4.8	0.0	0.0	1.3	0.0	0.0	1.3	0.0	36
Northern Red Sea	53.1	19.1	0.7	3.3	18.0	4.9	3.4	0.0	0.4	22.0	8.9	0.9	1.8	99
Anseba	68.2	9.8	1.1	2.8	12.2	1.1	5.2	0.6	4.3	34.1	16.3	0.6	0.0	120
Gash-Barka	35.7	9.2	2.3	3.3	44.8	2.2	19.6	0.4	3.2	31.5	0.0	0.9	0.8	157
Southern	33.0	29.3	3.4	8.0	26.6	3.4	1.3	0.0	2.1	1.4	0.0	1.2	0.0	263
Central	16.5	36.3	5.6	10.3	28.6	4.1	8.7	0.9	7.6	38.5	6.9	1.4	2.0	312
Education														
No education	52.2	6.2	1.6	0.4	34.2	0.8	8.8	0.2	1.8	19.1	5.3	1.3	0.9	400
Primary incomplete	30.3	30.3	5.3	5.8	23.9	3.5	7.1	0.3	4.1	20.3	1.4	0.9	0.6	237
Primary complete	16.1	39.7	2.8	15.4	28.3	4.5	7.9	1.5	8.2	33.4	8.2	1.3	0.8	136
Secondary+	12.2	43.2	5.4	16.4	22.9	7.0	4.0	0.3	5.7	30.9	6.5	0.9	1.3	215
Total	33.3	24.6	3.5	7.3	28.5	3.3	7.2	0.4	4.1	23.9	5.0	1.1	0.9	987

Note: The "no change" category includes those who say "don't know." Total includes 13 men who reported that their chance of getting AIDS was moderate/great. Figures in parentheses are based on 25 to 49 men.



10.6 Source of Condom Supply

Because of the important role condom use plays in combating the transmission of HIV, respondents were asked if they knew of a source for condoms and if so, they were asked to name the source. Table 10.12 shows knowledge of condoms and knowledge of a source for condoms among women and men who have heard of AIDS and who have had sexual intercourse. Knowledge of condoms is not high in Eritrea: 55 percent of women and 80 percent of men who have heard of AIDS reported knowing about condoms. Knowledge of a source for condoms is low; only 27 percent of women and 51 percent of men could name a source for condoms. While 11 percent of women and 5 percent of men reported that they could obtain condoms from a public sector source, 15 percent of women and 37 percent of men mentioned private pharmacies as a source for condoms. Knowledge of condoms and knowledge of a source for condoms are highest among respondents who live in urban areas and those who have some formal schooling (see Figure 10.2). Women and men in the Northern Red Sea Zone are least likely to know about condoms, and women in the Southern Zone and men in Gash-Barka are least likely to know a source for condoms.

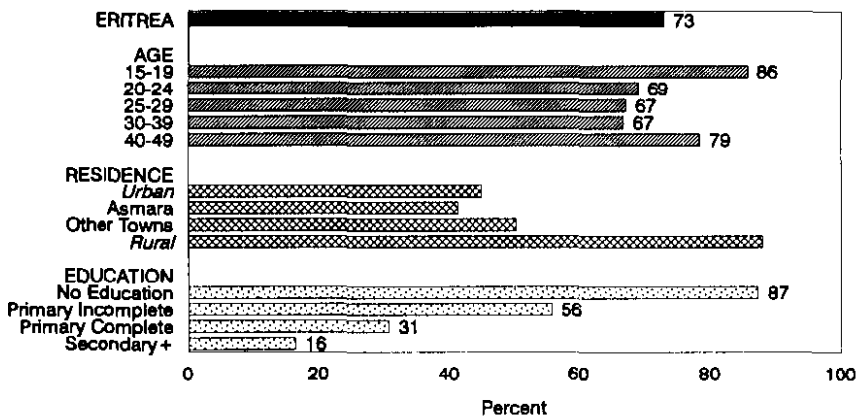
Table 10.12 Knowledge of condoms

Among women and men who have heard of AIDS and who have had sexual intercourse, the percentage who know about condoms and the percent distribution by knowledge of a source for condoms, according to selected background characteristics, Eritrea 1995

Background characteristic	Know about condoms[1]	Source for condoms: women						Total	Number of women	Know about condoms	Source for condoms: men						Total	Number of men
		Public sector	Private medical sector	Private pharmacy	Other source	Don't know a source	Missing				Public sector	Private medical sector	Private pharmacy	Other source	Don't know a source	Missing		
Age																		
15-19	47.0	2.8	0.0	10.9	0.0	85.7	0.6	100.0	320	*	*	*	*	*	*	*	100.0	9
20-24	63.3	9.1	0.9	20.4	0.4	69.1	0.0	100.0	475	97.4	8.0	8.0	52.5	12.3	19.1	0.0	100.0	72
25-29	59.0	13.0	1.5	17.7	0.4	67.2	0.2	100.0	491	82.1	4.4	5.7	46.0	3.3	40.6	0.0	100.0	98
30-39	57.4	14.5	1.0	16.8	0.8	66.8	0.2	100.0	783	82.0	8.1	2.6	44.1	5.6	39.6	0.0	100.0	193
40-49	46.7	10.9	1.0	9.1	0.3	78.5	0.2	100.0	725	80.1	3.4	2.2	32.6	5.1	56.1	0.5	100.0	198
50-59	NA	NA	NA	NA	NA	NA	NA	100.0	NA	66.7	4.3	1.7	15.9	1.8	75.5	0.7	100.0	124
Marital status																		
Never married	(92.5)	(19.7)	(0.0)	(39.3)	(0.0)	(32.5)	(8.5)	100.0	22	99.2	1.9	11.0	80.1	4.2	2.8	0.0	100.0	64
Currently married	52.4	10.3	1.1	13.8	0.4	74.3	0.1	100.0	2,231	78.6	5.7	2.5	33.2	5.2	53.2	0.2	100.0	587
Formerly married	62.9	13.6	0.5	18.5	0.5	66.6	0.2	100.0	541	(76.4)	(6.7)	(5.1)	(25.5)	(6.5)	(54.2)	(2.1)	100.0	43
Residence																		
Urban	83.2	25.1	2.6	26.5	0.5	45.0	0.3	100.0	1,017	94.9	9.2	8.7	62.1	2.8	17.2	0.1	100.0	223
Asmara	87.7	27.5	3.6	26.6	0.7	41.3	0.2	100.0	594	97.3	12.3	13.4	57.8	2.7	13.9	0.0	100.0	135
Other towns	76.9	21.7	1.3	26.2	0.2	50.3	0.3	100.0	423	91.1	4.3	1.4	68.9	2.9	22.3	0.2	100.0	88
Rural	38.4	3.0	0.0	8.3	0.4	88.1	0.2	100.0	1,778	73.5	3.7	1.0	25.1	6.3	63.5	0.4	100.0	470
Zone																		
Southern Red Sea	57.2	26.6	0.0	10.7	1.5	60.4	0.8	100.0	65	80.8	5.2	1.6	26.8	9.1	57.2	0.0	100.0	30
Northern Red Sea	38.3	10.9	0.8	12.0	0.0	76.2	0.1	100.0	282	64.8	5.3	0.0	31.2	0.0	61.0	2.5	100.0	76
Anseba	40.3	12.2	0.4	8.6	0.0	78.2	0.6	100.0	315	71.2	6.2	0.0	34.8	0.0	59.0	0.0	100.0	98
Gash-Barka	42.2	4.0	0.0	19.4	0.8	75.6	0.3	100.0	356	66.9	2.8	0.6	26.7	2.1	67.9	0.0	100.0	132
Southern	46.0	2.7	0.2	9.9	0.3	86.8	0.1	100.0	959	84.7	1.9	0.0	34.1	14.8	49.2	0.0	100.0	182
Central	81.4	22.2	2.6	22.7	0.7	51.7	0.2	100.0	817	97.9	10.8	12.9	53.4	2.1	20.9	0.0	100.0	176
Education																		
No education	38.8	5.0	0.5	6.4	0.4	87.4	0.3	100.0	1,859	66.3	2.9	0.5	10.7	7.2	78.2	0.5	100.0	364
Primary incomplete	79.9	16.6	1.1	26.0	0.5	55.7	0.1	100.0	559	91.4	6.6	1.7	58.3	4.5	28.9	0.0	100.0	152
Primary complete	94.7	23.5	3.5	41.7	0.0	30.8	0.4	100.0	185	99.2	7.4	9.9	71.0	0.7	11.0	0.0	100.0	71
Secondary+	97.4	41.7	2.3	38.9	0.8	16.4	0.0	100.0	192	100.0	11.1	11.5	73.9	2.4	1.1	0.0	100.0	107
Total	54.7	11.0	1.0	14.9	0.4	72.5	0.2	100.0	2,795	80.4	5.4	3.4	37.0	5.2	48.6	0.3	100.0	693

Note: Figures in parentheses are based on 25 to 49 men; an asterisk indicates that a figure is based on fewer than 25 women or men and has been suppressed.
[1] Includes knowledge of condoms for either family planning or disease prevention
NA = Not applicable

Figure 10.2
Percentage of Women Who Do Not Know a Source for Condoms among Women 15-49 Who Have Heard of AIDS and Who Have Had Sexual Intercourse



EDHS 1995

10.7 Use of Condoms

Table 10.13 shows the percentage of men who had sex in the 12 months preceding the survey who have ever used condoms for contraceptive purposes, for STD prevention, or for either reason. Seventeen percent of men reported using a condom for either reason, with 15 percent having used condoms for contraceptive purposes and 15 percent to avoid STDs. Thus, it is clear that most men have both contraception and STD prevention in mind when they use condoms.

Use of condoms for contraceptive purposes and for disease prevention is the same in nearly all population subgroups. Men who live in urban areas and those who have some education are more likely to have used condoms than men who live in rural areas or who have no education.

Table 10.13 also shows the prevalence of condom use during sex in the last four weeks by type of sexual contact (i.e., spouse or non-spouse). The data indicate that condom use is very low in Eritrea; only 2 percent of men used condoms with any partner. Among respondents who had sex with their wives in the four weeks before the survey, 1 percent said that a condom was used at least some of the time. Among men who had sex with regular partners, 3 percent used condoms.

Table 10.13 Use of condoms

Among men who had sexual intercourse in the 12 months preceding the survey, the percentage who have ever used condoms for family planning or to avoid STDs, and the percentage who used a condom during last sexual intercourse with a spouse/partner in the last four weeks, according to selected background characteristics, Eritrea 1995

	Ever used condom for:				Used condom during last sexual intercourse with:					
Background characteristic	Family planning	To avoid STDs	Either reason	Number of men	Spouse	Number of men	Regular partner	Number of men	Any partner[1]	Number of men
Age										
15-19	50.4	49.9	50.9	70	*	23	*	19	2.1	70
20-24	23.7	24.8	26.4	90	1.4	50	*	23	4.8	90
25-29	14.4	13.1	15.6	210	3.0	139	6.4	64	4.3	210
30-39	7.8	8.1	10.2	212	0.0	135	2.7	72	0.9	212
40-49	2.6	2.1	2.6	139	0.0	86	(0.0)	52	0.0	139
Marital status										
Never married	9.5	9.0	10.9	659	1.3	429	2.7	221	2.5	659
Currently married	85.8	86.9	87.9	49	NA	0	NA	0	0.0	49
Residence										
Urban	36.7	33.7	39.8	203	4.5	127	2.4	30	4.3	203
Asmara	41.3	35.9	44.3	121	6.4	79	*	14	6.0	121
Other towns	29.8	30.5	33.0	82	*	49	(0.0)	16	1.7	82
Rural	6.8	7.5	7.6	527	0.0	308	2.7	199	1.5	527
Zone										
Southern Red Sea	29.5	27.7	29.5	28	*	4	(0.0)	16	1.8	28
Northern Red Sea	10.7	8.5	10.7	80	0.0	61	*	15	0.7	80
Anseba	3.5	4.2	4.2	96	0.0	87	*	6	0.0	96
Gash-Barka	2.5	4.3	4.3	169	0.4	144	*	18	0.4	169
Southern	15.9	16.7	17.1	198	(0.0)	33	3.1	151	3.9	198
Central	34.0	30.6	37.0	160	4.8	106	2.9	25	4.5	160
Education										
No education	0.8	0.6	0.8	428	0.0	275	0.0	147	0.0	428
Primary incomplete	16.5	18.6	20.1	145	1.8	81	(4.9)	52	4.7	145
Primary complete	43.7	45.3	50.0	64	(2.1)	35	*	18	6.3	64
Secondary+	58.8	53.1	60.6	93	7.8	45	*	13	6.4	93
Total	15.1	14.8	16.6	730	1.3	436	2.6	230	2.3	730

Note: Total includes 7 men age 15-19 and 21 men who are formerly married. Total for any partner includes 64 men who had sex with an acquaintance or someone else. Figures in parentheses are based on 25 to 49 men; an asterisk indicates a figure is based on fewer than 25 man and has been suppressed.

[1] Includes men who had sex with an acquaintance or someone else

CHAPTER 11

MATERNAL MORTALITY AND ADULT MORTALITY

Data were collected in the EDHS that allow estimation of maternal mortality and adult mortality using both direct and indirect estimation procedures. The data concern the survivorship of all live births of the respondent's natural mother (siblings). The direct approach to estimating maternal and adult mortality maximizes use of the available data, using information on the age of surviving siblings, the age at death of siblings who died, and the number of years since the sibling died. This allows the data to be aggregated to determine the number of person-years of exposure to mortality risk and the number of sibling deaths occurring in defined calendar periods. Rates of maternal mortality or adult mortality are obtained by dividing maternal deaths (or adult deaths) by person-years of exposure (Rutenberg and Sullivan, 1991).

The indirect technique of estimation consists of what has been termed the *sisterhood method* (Graham et al., 1989). In this method, the data obtained from respondents about sisters are used to estimate the lifetime risk of dying from maternal causes. Such an estimate would naturally run into the problem of reference period, since it combines the mortality experiences of the previous 50 years. However, as Graham et al. have pointed out, combining data from respondents age 15-49 into a single estimate narrows the reference period to about 12 years prior to the survey. The biggest drawback to this method is uncertainty as to how accurately it estimates current maternal mortality, unless one assumes that mortality has been relatively constant over the years.

11.1 The Data

Each respondent was first asked to give the total number of her/his mother's live births. Then the respondent was asked to provide a list of all of the children born to her/his mother starting with the firstborn, and whether or not each of these siblings was still alive at the survey date. For living siblings, current age was collected; for deceased siblings, age at death and year of death or years since death were collected. Interviewers were instructed that when a respondent could not provide precise information on siblings' age at death or number of years since death, approximate but still quantitative answers were acceptable. For sisters who died at age 12 or older, in order to determine if the death was maternity-related the respondent was asked: "Was [NAME OF SISTER] pregnant when she died?" and if not, "Did she die during childbirth?" If death was neither during pregnancy or childbirth, two additional questions were asked: "Did she die within two months after the end of a pregnancy or childbirth?" and if yes, "Was her death due to complications of pregnancy or childbirth?" Although data were collected from both women and men, only the data for women were analyzed here due to the lack of tested procedures for analyzing data collected from men.

The estimation of adult and maternal mortality by either direct or indirect means requires reasonably accurate reporting of the number of sisters and brothers the respondent ever had, the number that have died, and the number of sisters who died of maternity-related causes. There is no definitive procedure for establishing the completeness or accuracy of retrospective data on sibling survivorship. Table 11.1 shows the number of siblings reported by respondents and the completeness of the reported data on current age, age at death, and years since death. Almost all respondents reported the sex of siblings. The sex ratio[1] of enumerated siblings (number of brothers per 100 sisters) was 109, which is higher than expected from international data (i.e., sex ratio at birth of 103-105) and may indicate an underreporting of sisters or overreporting of brothers by respondents. For surviving siblings, there was complete reporting of age.

[1] Sex ratio is defined as number of males per 100 females.

Table 11.1 Data on siblings

Number of siblings reported by female survey respondents and completeness of reported data on sibling age, age at death (AD) and years since death (YSD), Eritrea 1995

	Sisters		Brothers		All siblings	
Sibling	Number	Percentage	Number	Percentage	Number	Percentage
All siblings	13,229	100.0	14,376	100.0	27,605	100.0
Living	10,466	79.1	10,548	73.4	21,014	76.1
Dead	2,760	20.9	3,824	26.6	6,584	23.8
Missing survival information	3	--	4	--	7	--
Living siblings	10,466	100.0	10,548	100.0	21,014	100.0
Age reported	10,466	100.0	10,547	100.0	21,012	100.0
Age missing	0	0.0	2	--	2	--
Dead siblings	2,760	100.0	3,824	100.0	6,584	100.0
AD and YSD reported	2,734	99.1	3,792	99.2	6,526	99.1
AD missing	4	0.2	5	0.1	9	0.1
YSD missing	12	0.4	10	0.3	21	0.3
Both AD and YSD missing	10	0.4	16	0.4	26	0.4

-- Less than 0.05 percent

Similarly, age at death and number of years since death occurred were reported for over 99 percent of deceased siblings.

Rather than exclude the small number of siblings with missing data from further analysis, information on the birth order of siblings in conjunction with other information was used to impute the missing data.[2] The sibling survivorship data, including cases with imputed values, were used in the direct estimation of adult and maternal mortality.

11.2 Direct Estimates of Adult Mortality

The quality of the data used to estimate maternal mortality can also be assessed by evaluating the plausibility and stability of overall adult mortality. It is reasoned that if estimated rates of adult mortality are implausible, rates based on a subset of deaths—i.e., maternal deaths—are also likely to have serious problems.

[2] The imputation procedure is based on the assumption that the reported birth order of siblings in the birth history is correct. The first step is to calculate birth dates. For each living sibling with a reported age and for each dead sibling with complete information on both age at death and years since death, the birth date was calculated. For a sibling missing these data, a birth date was imputed within the range defined by the birth dates of the bracketing siblings. In the case of living siblings, age was calculated from the imputed birth date. In the case of dead siblings, if either age at death or years since death was reported, that information was combined with the birth date to produce the missing information. If both pieces of information were missing, the distribution of age at death of siblings for whom the years since death was unreported, but age at death was reported, was used as a basis for imputing the age at death.

Table 11.2 presents age-specific mortality rates for women and men age 15-49 for the ten-year period preceding the survey, calculated through direct estimation procedures. Since the number of deaths on which the rates are based is not large (421 women and 569 men), the estimated five-year, age-specific rates are subject to considerable sampling variation. Additionally, the age-specific estimates of mortality are unstable, and do not show the expected pattern of increasing mortality with age. Typically, the rate for men is considerably higher than the rate for women by age group, so that the net effect is for mortality among men to exceed mortality among women by some 30 percent.

Table 11.2 Adult mortality rates

Estimated adult mortality rates for women and men in the period 0-9 years before the survey, Eritrea 1995

Age	Deaths	Exposure	Mortality rates
WOMEN			
15-19	61.6	15,550	3.96
20-24	93.6	15,763	5.94
25-29	80.3	13,940	5.76
30-34	83.6	11,399	7.34
35-39	47.8	8,500	5.62
40-44	30.6	5,536	5.53
45-49	23.8	3,087	7.72
15-49	421.3	73,774	5.71
MEN			
15-19	107.5	16,622	6.47
20-24	133.9	16,477	8.13
25-29	135.1	13,977	9.66
30-34	89.5	10,867	8.23
35-39	49.4	7,800	6.33
40-44	34.5	5,081	6.78
45-49	19.3	3,088	6.24
15-49	569.1	73,912	7.45[a]

[a] Age-adjusted rates

11.3 Direct Estimates of Maternal Mortality

Direct estimates of maternal mortality based on the reported survivorship of sisters are presented in Table 11.3 for the period 0-9 years before the survey (1986-95). The number of maternal deaths reported is 157. The preferred approach is to determine a single estimate for all childbearing ages (15-49 years). For the ten-year period before the survey (1986-95), the rate of mortality due to causes related to pregnancy and childbearing is 2.129 maternal deaths per 1,000 woman-years of exposure. Maternal deaths represent approximately 37 percent of all deaths to women age 15-49. Thirty-one percent of all maternal deaths occurred during pregnancy, 45 percent around childbirth, and 24 percent in the two months following pregnancy termination or childbirth (data not shown).

Table 11.3 Direct estimates of maternal mortality

Direct estimates of maternal mortality for the period 0-9 years before the survey, Eritrea 1995

Age	Deaths	Exposure	Mortality rates[1]	Mortality adjusted by age
15-19	18.6	15,550	1.194	0.267
20-24	44.1	15,763	2.798	0.456
25-29	33.9	13,940	2.430	0.376
30-34	43.2	11,398	3.788	0.478
35-39	11.3	8,500	1.329	0.148
40-44	4.6	5,536	0.838	0.100
45-49	1.4	3,087	0.445	0.046
15-49	157.0	73,774	2.129	1.870
General Fertility Rate (GFR)			0.187	
Maternal Mortality Ratio (MMR)[2]			998	

[1] Expressed per 1,000 woman-years of exposure
[2] Per 100,000 live births; calculated as the maternal mortality rate divided by the general fertility rate.

The maternal mortality rate can be converted to a maternal mortality ratio and expressed per 100,000 live births by dividing the mortality rate by the general fertility rate operating during the same time period. In this way, the obstetrical risk of pregnancy and childbearing is underlined. By direct estimation procedures, the maternal mortality ratio is estimated as 998 maternal deaths per 100,000 live births during the period 1986-95.

11.4 Indirect Estimates of Maternal Mortality

The data on the survivorship of sisters can also be used to estimate maternal mortality by an indirect technique, i.e., the sisterhood method. In this meth-

od, the data are aggregated by five-year age groups of respondents. For each age group, information on the number of maternal deaths among all sisters of respondents and on the number of "sister units" of risk is used to estimate the lifetime risk of dying from maternal causes. The method also provides an overall estimate of maternal mortality for sisters of all respondents combined which refers to a period centered on 12-13 years prior to the survey.

The indirect estimates of maternal mortality are given in Table 11.4. When aggregating the data over all respondents, the lifetime risk of maternal death is 0.069, a risk of dying of maternal causes of about 1 in 14. The lifetime risk of maternal death can be converted to an estimate of the maternal mortality ratio: 985 maternal deaths per 100,000 live births, applicable to a period around the year 1983 (see formula in Table 11.4).

Table 11.4 Indirect estimates of maternal mortality

Estimates of maternal mortality using the indirect method, Eritrea 1995

Age group	Number of respondents (a)	Number of sisters 15+ (b)	Number of dead sisters 15+ (c)	Number of maternal deaths (d)	Adjustment factor (e)	Sister units of exposure to risk (f)=(b)x(e)	Lifetime risk of maternal death (g)=(c)/(f)
15-19	1,129	2,427	73	21.7	0.107	260	0.093
20-24	823	1,769	102	41.0	0.206	364	0.121
25-29	782	1,682	113	50.0	0.343	577	0.093
30-34	638	1,291	117	52.9	0.503	650	0.089
35-39	562	1,210	121	37.1	0.664	804	0.051
40-44	603	1,288	148	52.7	0.802	1,033	0.055
45-49	518	1,118	169	47.3	0.900	1,006	0.049
Total (15-49)	5,054	10,786	841	302.7	-	4,694	0.069

TFR 1981-85	6.5 children per woman
MMR	985 per 100,000 live births

TFR = Total fertility rate
MMR = Maternal Mortality Ratio = $(1 - [(1 - \text{Lifetime risk}]^{1/TFR}) \times 100{,}000$, where TFR represents the total fertility rate 10-14 years preceding the survey.
Note: Figures in column (b) are adjusted for age distribution of respondent's sisters (see Graham et al., 1989).

11.5 Conclusion

The maternal mortality ratio was estimated to be 998 per 100,000 live births by direct means, applicable to a 1986-95 time period; and 985 per 100,000 live births by the sisterhood (indirect) method referring to a period centered around the year 1983. The two rates are so close as to be almost indistinguishable. It should be emphasized that the standard errors of the estimates presented are rather large and the results should be interpreted with caution. For example, analysis of previous DHS sisterhood estimates have shown 95 percent confidence intervals around maternal mortality rates to be plus or minus 31 percent, on average (Stanton et al., 1996).

CHAPTER 12

FEMALE CIRCUMCISION

Female circumcision, also known as female genital mutilation, is prevalent in Eritrea and many other African countries. In Eritrea, as in other countries, the practice of female circumcision is based on cultural tradition.

In the EDHS, the Women's Questionnaire included a series of questions on female circumcision. Additionally, a small number of questions on the topic were included in the Men's Questionnaire. Every female respondent was asked if she had been circumcised. If circumcised, she was asked the type of circumcision, age at which the operation was performed, and the person who performed the operation. Whether a woman was circumcised or not, if she had a daughter, the same information was collected on the eldest living daughter. If the daughter was circumcised, the respondent was also asked if anyone objected to having her circumcised.

Information was also collected on whether women had had any health problems or other complications during sexual relations or at the time of delivery as a result of being circumcised, and on the type of medical help sought for these problems or complications. Attitudinal questions on female circumcision were included in both the Women's and the Men's Questionnaires. Questions were asked about attitudes toward female circumcision in general and reasons for supporting or opposing the practice. Currently married respondents were asked about their spouse's attitude toward circumcision.

12.1 Practice of Female Circumcision

Prevalence of Female Circumcision Among Respondents

Table 12.1 indicates that female circumcision is almost universal in Eritrea, with 95 percent of Eritrean women having been circumcised. Differentials in prevalence are small because at least 90 percent of women in each category are circumcised. Younger women (age 15-19 years) and women living in the Southern and Central Zones are slightly less likely to be circumcised than other women.

Table 12.1 also shows the percent distribution of circumcised women by the type of circumcision. Although variation exists, there are three generally recognized types of female circumcision: clitoridectomy, excision, and infibulation. The types of circumcision are not strictly defined and categorization may not be exact because of variations in procedures among practitioners. *Clitoridectomy* is the removal of the prepuce with or without excision of all or part of the clitoris. *Excision* is the removal of the prepuce and clitoris along with all or part of the labia minora. *Infibulation* (also called "pharanoic circumcision") is the most severe form of female circumcision. It consists of removal of all or part of the external genitalia, followed by joining together of the two sides of the labia majora using threads, thorns, or other materials to narrow the vaginal opening (WHO, 1996).

Among circumcised women, 6 in 10 received clitoridectomy and one-third underwent infibulation. Only a small proportion had excision (4 percent). Urban women in general, and women in Asmara in particular, are less likely to report undergoing infibulation than those in rural areas. Zones can be divided into two groups. Around 95 percent of women in the Southern and Central Zones have had clitoridectomy, while the majority of circumcised women (61-74 percent) in other zones have infibulation. Excision is more

Table 12.1 Prevalence and type of female circumcision

Percentage of women circumcised and the percent distribution of circumcised women by type of circumcision, according to selected background characteristics, Eritrea 1995

Background characteristic	Percentage circumcised	Number of women	Type of circumcision: Clitori-dectomy	Excision	Infibu-lation	Missing	Total	Number of circumcised women
Age								
15-19	90.4	1,129	70.7	4.3	24.6	0.3	100.0	1,020
20-24	94.4	823	62.9	4.5	32.4	0.2	100.0	777
25-29	94.9	782	55.1	3.7	41.0	0.2	100.0	743
30-34	95.6	638	51.4	6.0	42.6	0.0	100.0	610
35-39	97.0	562	57.1	5.7	37.2	0.0	100.0	545
40-44	95.9	603	61.6	2.4	36.0	0.0	100.0	578
45-49	97.1	518	66.5	4.4	29.1	0.0	100.0	503
Residence								
Urban	92.9	1,648	83.9	3.1	12.7	0.2	100.0	1,530
Asmara	91.2	1,059	95.0	1.8	2.9	0.3	100.0	966
Other towns	95.8	589	65.0	5.4	29.5	0.1	100.0	565
Rural	95.3	3,406	50.9	5.0	44.1	0.1	100.0	3,245
Zone								
Southern Red Sea	96.8	139	38.0	1.6	60.5	0.0	100.0	135
Northern Red Sea	99.1	556	19.2	12.2	68.5	0.1	100.0	551
Anseba	99.2	642	21.0	5.2	73.9	0.0	100.0	637
Gash-Barka	98.4	957	28.9	1.8	69.1	0.1	100.0	942
Southern	90.0	1,392	94.9	4.6	0.6	0.0	100.0	1,253
Central	91.9	1,368	94.1	2.7	2.9	0.3	100.0	1,258
Total	94.5	5,054	61.5	4.4	34.0	0.1	100.0	4,775

common in the Northern Red Sea Zone (1 in 8 women) than in the other zones, where at most 5 percent of women report this procedure.

Prevalence of Circumcision Among Daughters of Respondents

Female respondents who had one or more daughters at the time of the survey were asked whether their eldest daughter was circumcised. If the daughter was circumcised, the respondents were asked how old the daughter was when she was circumcised, and who performed the procedure.

Seven in 10 daughters were reported to have been circumcised (see Table 12.2.1). The fact that the percentage of daughters circumcised is lower than the percentage circumcised among respondents does not necessarily indicate a decline in female circumcision since some daughters may yet be circumcised.

Age at Circumcision

Table 12.2.1 presents the distribution of circumcised daughters by age at circumcision. Similar data for all respondents are presented in Table 12.2.2. The distributions are not strictly comparable because a substantial proportion of women (28 percent) did not know the age at which they were circumcised (see Table 12.2.2). However, a general idea of current practice can be obtained by examining the distribution of daughters by age at circumcision (see Table 12.2.1).

Table 12.2.1 Age at circumcision: eldest daughter

Percentage of eldest daughters circumcised and percent distribution of circumcised eldest daughters by age at circumcision, according to selected background characteristics, Eritrea 1995

Background characteristic	Percentage of eldest daughters circumcised	Age at circumcision <7 days	8-30 days	One month	2-11 months	1-2 years	3-4 years	5+ years	Don't know/ Missing	Total	Number of circum-cised daughters
Residence											
Urban	73.7	27.1	26.6	17.2	14.7	5.3	4.7	3.8	0.6	100.0	531
Asmara	73.3	27.2	32.2	18.8	15.5	4.0	0.9	0.5	0.9	100.0	312
Other towns	74.3	26.8	18.6	15.0	13.7	7.1	10.1	8.6	0.0	100.0	219
Rural	70.6	21.2	20.0	10.6	12.0	7.2	15.3	13.2	0.5	100.0	1,474
Mother's education											
No education	73.7	22.4	20.8	11.3	11.4	6.7	14.4	12.5	0.5	100.0	1,651
Primary incomplete	64.8	26.0	23.8	19.3	17.8	6.3	4.0	2.4	0.3	100.0	223
Primary complete	57.8	23.0	26.2	11.5	23.8	5.2	5.1	4.0	1.2	100.0	63
Secondary+	59.9	19.4	33.0	17.4	18.8	9.4	0.0	0.9	1.1	100.0	69
Total	71.4	22.7	21.8	12.4	12.7	6.7	12.5	10.8	0.5	100.0	2,005

Note: Figures in parentheses are based on 25 to 49 daughters.

Table 12.2.2 Age at circumcision: women

Percent distribution of circumcised women by age at circumcision, according to selected background characteristics, Eritrea 1995

Background characteristic	Age at circumcision <8 days	8-30 days	One month	2-11 months	1-2 years	3-4 years	5+ years	Don't know/ Missing	Total	Number of circumcised women
Residence										
Urban	23.6	20.6	12.4	8.6	2.7	2.8	4.1	25.0	100.0	1,530
Asmara	26.8	25.2	13.3	8.9	1.6	0.6	1.0	22.6	100.0	966
Other towns	18.3	12.7	10.9	8.2	4.6	6.6	9.5	29.2	100.0	565
Rural	11.4	10.2	7.1	5.4	5.6	15.1	15.9	29.3	100.0	3,245
Education										
No education	12.4	9.9	7.4	5.3	5.1	15.9	16.2	27.9	100.0	3,177
Primary incomplete	20.5	17.3	9.7	7.7	4.9	2.7	5.5	31.8	100.0	734
Primary complete	20.2	25.1	10.9	8.3	3.6	1.5	3.9	26.5	100.0	404
Secondary+	23.4	22.8	15.2	10.9	1.9	0.9	2.0	22.9	100.0	460
Total	15.3	13.6	8.8	6.4	4.7	11.2	12.1	27.9	100.0	4,775

Almost half (45 percent) of daughters were reported by their mothers to have been circumcised in the first month of life, and half of these before they were eight days old. One-quarter of daughters were circumcised when they were between 1 and 11 months of age, and a small proportion were circumcised at ages 1-2 years (7 percent). Almost one-quarter of daughters were circumcised after two years of age: 13 percent at age 3-4 years and 11 percent thereafter.

In Asmara, less than 6 percent of daughters are circumcised after one year, compared with 26 percent of daughters in other towns, and 36 percent in rural areas. There is a negative relationship between mother's education and the likelihood a daughter will be circumcised after the first birthday. While more than one-third of daughters of mothers with no education were circumcised after the first birthday, only 10 percent of daughters of mothers with secondary or higher education were circumcised after one year of age.

Person Performing the Procedure

Female circumcision in Africa is usually performed by traditional birth attendants, midwives or elderly women in the village who have experience, but not necessarily any medical training (Rushwan, 1990). Table 12.3 shows that almost all circumcisions in Eritrea are performed by circumcision practitioners; only a small proportion are performed by traditional midwives (4 percent). Five percent of women did not know who performed the procedure. There are only small differences in circumcision provider by type of circumcision. Almost all of the circumcised eldest daughters were circumcised by circumcision practitioners or traditional midwives.

Table 12.3 Persons who perform female circumcision

Percent distribution of circumcised women and eldest daughters by person who performed the operation, according to the type of circumcision, Eritrea 1995

	Person who performed circumcision							
Type of circumcision	Doctor	Trained nurse/ Midwife	Traditional midwife	Circumcision practitioner	Other	Don't know/ Missing	Total	Number of women/ daughters
Clitoridectomy	0.2	0.1	2.9	91.8	0.0	5.0	100.0	2,934
Excision	0.0	0.3	5.0	92.7	0.0	2.0	100.0	210
Infibulation	0.0	0.0	6.1	89.2	0.0	4.7	100.0	1,624
Women	0.1	0.1	4.0	91.0	0.0	4.8	100.0	4,775
Eldest daughters	0.3	0.3	3.7	95.3	0.1	0.3	100.0	2,005

Note: Total for women includes 7 women for whom type of circumcision is unknown.

12.2 Problems Associated with Circumcision

"Many medical complications—immediate and long-term—arise from female circumcision. Bleeding is unavoidable since damage to the blood vessels is inevitable. Shock from the loss of blood and pain—since the operation is performed without anaesthetic—also invariably occurs to some degree and in some cases leads to death. Infection is a common complication to the unhygienic conditions in which the "operation" is performed. Tetanus and septicaemia (blood poisoning) also occur and can prove fatal." (Rushwan, 1990).

Long-term complications can cause suffering for many years. Hardening of the scar tissue (keloids) can cause problems during sexual intercourse or at the time of delivery. In order to ascertain the extent of complications, all female respondents who had ever had sex were asked whether they had had any problems or complications due to circumcision during sexual intercourse or at the time of delivery.

One in five circumcised women had a problem either during sexual intercourse or at the time of delivery; one in eight reported having problems during sex, and one in six had problems at the time of delivery (see Table 12.4 and Figure 12.1). Nine percent had both types of problems. Although these problems associated with circumcision were self-diagnosed by respondents, it is likely that many respondents consider them normal and natural for women, especially among populations where female circumcision is very common. The type of circumcision is closely related to the likelihood of having some problem but there

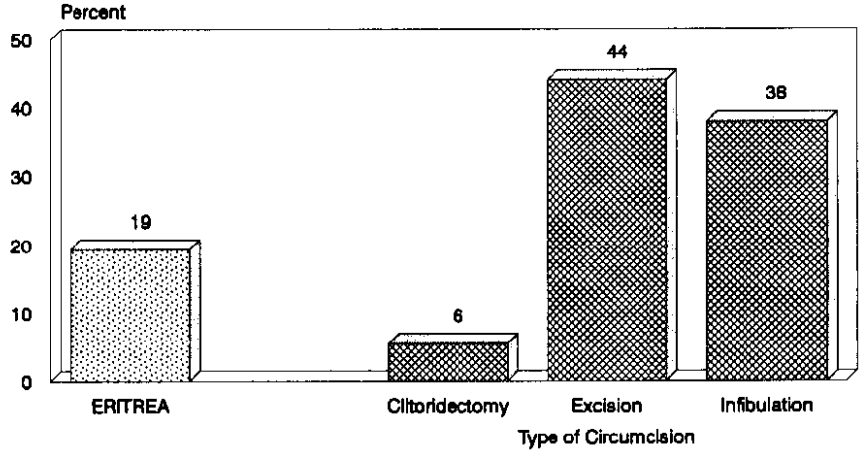
Table 12.4 Problems associated with circumcision

Among circumcised women who have ever had sex, the percentage who had problems or complications during sexual relations and/or delivery as a result of being circumcised, by selected background characteristics, Eritrea 1995

Background characteristic	Any problem	Problem during sexual relations	Problem during delivery[1]	Problem during sexual relations and delivery[1]	Number of women
Type of circumcision					
Clitoridectomy	5.5	2.7	4.5	1.5	2,240
Excision	44.0	30.7	39.7	24.3	190
Infibulation	37.9	24.9	33.2	18.1	1,444
Education					
No education	21.6	14.2	18.3	10.0	2,979
Primary incomplete	12.3	6.9	10.9	4.4	545
Primary complete	9.5	4.3	6.8	0.9	174
Secondary+	14.7	6.1	14.6	4.7	181
Total	19.4	12.3	16.6	8.6	3,878

Note: Total includes 3 women for whom the type of circumcision was not known.
[1] Based on women who have had a birth

Figure 12.1
Percentage of Circumcised Women Who Had Problems During Sex or at Delivery by Type of Circumcision



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is a greater likelihood of having problems at delivery than during sexual relations for all types of circumcision. A small percentage of women (6 percent) with clitoridectomy reported having a problem. On the other hand, a high percentage of women who have had excision or infibulation reported that they had some problem or complication as a result of circumcision: 44 percent for those who had excision, and 38 percent for those who had infibulation. Among women who were infibulated, one-quarter had problems during sex and one-third had problems at the time of delivery, including more than one in six women who suffered both types of problems.

Consultation for Problems Associated with Circumcision

The women who had problems or complications as a result of being circumcised, either during sexual relations or at delivery or both, were asked what they did to treat the problem. Table 12.5 shows that three-fourths of the women did not seek any outside treatment, 16 percent went to health facilities and 10 percent went to traditional healers. Women with clitoridectomy, although they had fewer problems as a result of circumcision, were more likely to seek outside help (59 percent) and, when seeking help, almost always went to a health facility (56 percent). In contrast, only one-third of women with excision and one-sixth of women with infibulation sought treatment for their problems. In both cases, almost two-thirds went to traditional healers.

Table 12.5 Source of treatment for problems associated with circumcision

Percent distribution of circumcised women who had problems or complications during sexual relations and/or delivery by source of treatment, according to selected background characteristics, Eritrea 1995

Background characteristic	Source of treatment: None	Health facility	Traditional healer	Total	Number of women
Type of circumcision					
Clitoridectomy	41.2	56.2	2.6	100.0	123
Excision	67.4	12.6	19.9	100.0	84
Infibulation	83.7	6.8	9.5	100.0	547
Education					
No education	80.5	9.3	10.3	100.0	644
Primary incomplete	50.6	44.0	5.4	100.0	67
Primary complete	(44.9)	(51.3)	(3.8)	100.0	17
Secondary+	(21.8)	(73.1)	(5.2)	100.0	27
Type of problem					
During sex only	91.7	5.6	2.7	100.0	183
During delivery only	61.6	27.1	11.3	100.0	276
During sex and delivery	77.1	10.8	12.1	100.0	295
Total	75.0	15.5	9.5	100.0	754

Note: Figures in parentheses are based on 25 to 49 women.

The higher the level of education, the more likely a woman will seek treatment for circumcision-related problems. Among those seeking treatment, the proportion of women consulting traditional healers decreases as education level increases. While only 8 percent of women who had problems during sexual relations sought help, 38 percent of those with problems that occurred during delivery, and 23 percent who had both types of problems sought treatment. It should be noted that for women who mentioned both types of problems it is not clear whether they sought treatment for one or both types and if for one, for which one they consulted and sought treatment.

12.3 Attitudes Toward Circumcision

In addition to asking women and men whether female circumcision should be continued or discontinued, women whose eldest daughter was circumcised were asked if anyone objected to their daughter being circumcised.

Objection to Daughter's Circumcision

Overall, 1 percent of mothers and 1 percent of fathers objected to their daughter being circumcised (data not shown). Four percent of fathers in Asmara and 3 percent in other towns and also in the Central Zone objected to their daughter's circumcision. Compared with other zones, objections were more common in the Southern Red Sea Zone (5 percent). In that zone, although mothers did not object, fathers, maternal grandmothers, paternal grandmothers, and mother's other relatives objected to the daughter being circumcised (data not shown).

Women's and Men's Attitudes Toward Female Circumcision

All women and men surveyed in the EDHS were asked, "Do you think female circumcision should be continued or should it be discontinued?"

The EDHS results presented in Table 12.6.1 indicate that overall support for continuing female circumcision is not high, compared with the level of its practice, and varies by circumcision status of the mother and daughter. Fifty-seven percent of women believe that the practice should be continued, 38 percent believe it should be discontinued, and 5 percent have no opinion (don't know). Support for the practice increases directly with the severity of the type of circumcision. Only 14 percent of uncircumcised women, less than half of the women with clitoridectomy, and slightly more than one-half of women with excision say that they believe the practice should be continued. Support is most widespread among women who have undergone infibulation; 81 percent of these women would like to see the practice continue.

Table 12.6.1 Attitudes toward female circumcision by circumcision status of respondent and respondent's daughter

Percent distribution of women by attitude toward circumcision according to circumcision status of respondent and respondent's eldest daughter, Eritrea 1995

	Female circumcision should:				
Circumcision status	Be continued	Be discontinued	Don't know	Total	Number of women
Respondent's status					
Circumcised					
Clitoridectomy	47.5	48.0	4.5	100.0	2,934
Excision	55.6	42.4	2.1	100.0	210
Infibulation	81.1	13.9	4.9	100.0	1,624
Not circumcised	13.8	76.1	10.1	100.0	279
Respondent/daughter's status					
Daughter circumcised					
Mother: Clitoridectomy	66.0	30.2	3.8	100.0	1,185
Mother: Excision	57.7	40.7	1.6	100.0	119
Mother: Infibulation	84.6	11.3	4.1	100.0	676
Daughter not circumcised	47.9	48.8	3.2	100.0	803
No daughters	46.9	46.7	6.3	100.0	2,246
Total	56.8	38.4	4.8	100.0	5,054

Note: Total includes 7 women with type of circumcision not known and 21 women whose daughter was circumcised but they were not.

Less than half of women who have no daughters or whose eldest daughter has not been circumcised support circumcision. Among women who had excision or infibulation, support for the practice is virtually the same for all women and women whose eldest daughters were circumcised. Compared with support among all respondents who had clitoridectomy (48 percent), a substantial increase in support for circumcision is shown among mothers who had clitoridectomy and whose daughters were circumcised (66 percent).

Table 12.6.2 and Figure 12.2 present women's and men's attitudes toward female circumcision by selected background characteristics. As the table shows, among women support for the practice declines steadily from 71 to 41 percent with decreasing age of respondents. Less than 30 percent of women residing in Asmara, and less than 50 percent of women in other towns, compared with two-thirds of rural women would like to see the practice continue. The highest support for continuation of circumcision by zone is among women in the Gash-Barka Zone (83 percent), while the lowest support is in the Central Zone (33 percent), a difference of 50 percentage points. In order of increasing support for the practice, the remaining zones are as follows: Southern Zone (53 percent), Anseba Zone (61 percent), Northern Red Sea Zone (71 percent), and Southern Red Sea Zone (76 percent).

Table 12.6.2 Attitudes toward female circumcision according to selected background characteristics

Percent distribution of women and men by attitude toward circumcision, according to selected background characteristics, Eritrea 1995

	WOMEN					MEN				
	Female circumcision should:					Female circumcision should:				
Background characteristic	Be continued	Be discontinued	Don't know	Total	Number of women	Be continued	Be discontinued	Don't know	Total	Number of men
Age										
15-19	40.9	51.1	8.0	100.0	1,129	24.2	48.9	26.9	100.0	237
20-24	49.0	47.1	3.7	100.0	823	29.5	56.1	14.4	100.0	142
25-29	59.0	38.0	3.0	100.0	782	48.1	45.9	6.0	100.0	127
30-34	60.9	34.8	4.3	100.0	638	43.9	44.2	11.9	100.0	102
35-39	68.2	28.6	3.2	100.0	562	53.0	44.1	2.9	100.0	125
40-44	66.6	27.0	6.4	100.0	603	62.7	32.1	5.1	100.0	117
45-49	71.2	25.8	3.0	100.0	518	55.4	31.6	13.0	100.0	113
50-54	NA	NA	NA	NA	NA	73.3	19.4	7.3	100.0	77
55-59	NA	NA	NA	NA	NA	60.2	26.9	12.9	100.0	73
Residence										
Urban	35.7	60.0	4.3	100.0	1,648	28.1	62.7	9.2	100.0	356
Asmara	28.9	66.9	4.1	100.0	1,059	19.6	72.5	7.9	100.0	229
Other towns	48.0	47.5	4.5	100.0	589	43.3	45.2	11.5	100.0	127
Rural	66.9	27.9	5.1	100.0	3,406	53.9	31.5	14.6	100.0	758
Zone										
Southern Red Sea	76.2	19.9	4.0	100.0	139	61.1	19.7	19.2	100.0	39
Northern Red Sea	71.4	23.1	5.5	100.0	556	57.2	33.4	9.4	100.0	110
Anseba	61.1	30.6	8.3	100.0	642	71.1	26.3	2.5	100.0	133
Gash-Barka	82.5	15.1	2.2	100.0	957	69.4	16.9	13.7	100.0	233
Southern	53.0	41.8	5.2	100.0	1,392	31.7	46.1	22.2	100.0	286
Central	32.6	62.9	4.5	100.0	1,368	23.7	67.7	8.7	100.0	312
Education										
No education	71.0	23.8	5.1	100.0	3,332	68.6	18.0	13.4	100.0	520
Primary incomplete	36.6	57.8	5.5	100.0	786	33.8	50.3	15.9	100.0	243
Primary complete	28.9	66.3	4.7	100.0	435	29.8	59.4	10.8	100.0	136
Secondary+	17.9	80.4	1.7	100.0	501	13.4	77.1	9.5	100.0	215
Total	56.8	38.4	4.8	100.0	5,054	45.6	41.5	12.9	100.0	1,114

NA = Not applicable

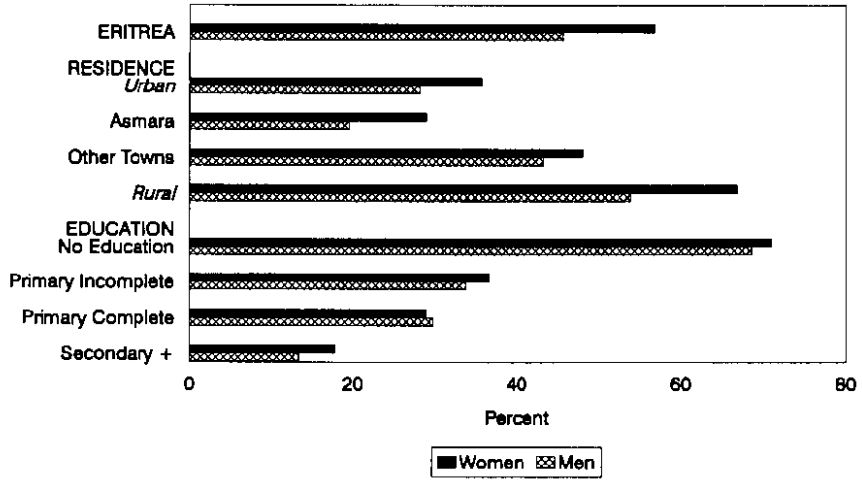


Figure 12.2
Support for Female Circumcision
by Background Characteristics

EDHS 1995

Differentials in support of the practice are even more dramatic by education. Those who have been to school but have not completed the primary level are half as likely to favor continuing the practice as those with no education (37 percent versus 71 percent). Three in 10 women who have completed primary school and less than 2 in 10 of those with higher education think that the practice should continue.

Table 12.6.2 shows that support for continuing circumcision is weaker among men than among women in almost all categories. It should be noted that 13 percent of men compared with only 5 percent of women responded "don't know" to the question on attitude of toward circumcision.

Differentials by age among men do not follow exactly the same pattern as previously observed for women; however, as with women, support for continuing the practice generally declines with decreasing age. The attitude of men toward continuation of the practice by residence shows a somewhat similar pattern as that for women, with greater support in rural than in urban areas. In all zones except the Anseba Zone, the proportion wanting to see circumcision continue is lower among men than among women. The difference is most notable in the Southern Zone (more than 20 percentage points). Differentials by education among men show the same pattern as for women—the decreasing support for circumcision with increasing education.

Two-thirds of women who think that female circumcision should be continued say that their spouses share the same attitude, while 21 percent report that their husbands/partners want the practice to be discontinued. Women who would like to see the practice discontinued are less likely to be in agreement with their husbands (59 percent), 30 percent of whom want the practice to be continued (data not shown).

Type of Circumcision Preferred

Women and men who favor the continuation of circumcision were asked which type of circumcision they preferred. Table 12.7.1 presents the percent distribution of women who want circumcision to be con-

Table 12.7.1 Preferred type of circumcision according to circumcision status of respondent and respondent's daughter

Percent distribution of women who think female circumcision should be continued by type of circumcision preferred, according to circumcision status of respondent and respondent's eldest daughter, Eritrea 1995

Circumcision status	Type of circumcision preferred: Clitori-dectomy	Excision	Infibu-lation	Other/ Missing	Total	Number of women
Respondent's status						
Circumcised						
Clitoridectomy	98.8	0.0	0.2	1.0	100.0	1,395
Excision	6.6	86.7	6.6	0.0	100.0	117
Infibulation	4.7	1.7	92.3	1.3	100.0	1,318
Not circumcised	(89.5)	(1.9)	(8.6)	(0.0)	100.0	39
Respondent/daughter's status						
Daughter circumcised						
Mother: Clitoridectomy	99.5	0.0	0.1	0.4	100.0	782
Mother: Excision	9.4	83.0	7.6	0.0	100.0	69
Mother: Infibulation	6.3	2.5	89.3	1.9	100.0	572
Daughter not circumcised	34.3	3.2	61.1	1.4	100.0	384
No daughters	49.6	3.9	45.3	1.2	100.0	1,053
Total	51.7	4.3	42.9	1.1	100.0	2,869

Note: Total includes one woman with "other" type of circumcision and 4 women whose daughter was circumcised but they were not and one woman whose daughter was circumcised but mother's type of circumcision is not known. Figures in parentheses are based on 25-49 women.

tinued by preferred type of circumcision, according to circumcision status of respondent and respondent's eldest daughter.

Among women who want circumcision to be continued, 52 percent prefer clitoridectomy, 4 percent excision, and 43 percent infibulation. Ninety percent of those who were not circumcised favor clitoridectomy and 9 percent infibulation. Circumcised women overwhelmingly favor continuation of the same procedure they had: 99 percent of those who had clitoridectomy, 87 percent of those who had excision, and 92 percent of those who had infibulation. Among respondents who did not have a daughter, half favor clitoridectomy, 45 percent infibulation, and 4 percent excision. The preferred circumcision procedure of 6 in 10 women whose eldest daughter was uncircumcised is infibulation; 1 in 3 prefer clitoridectomy. When the eldest daughter was circumcised, the preferred type of circumcision was again that of the mother.

Table 12.7.2 presents the distribution of women and of men who favor continuation of female circumcision by preferred type of circumcision, according to selected background characteristics. Overall, men are more in favor of clitoridectomy than women (57 percent versus 52 percent) and more in favor of excision than women (11 percent versus 4 percent). On the other hand, men are much less likely to favor infibulation (28 percent) than women (43 percent).

By age, the preferred type of circumcision closely parallels that of the respondent (see Table 12.1). At least one-half of women who favor continuation of circumcision prefer clitoridectomy in every age group except those in their late twenties and early thirties, who prefer infibulation. Infibulation is least preferred by women in the oldest cohort.

Table 12.7.2 Preferred type of female circumcision according to selected background characteristics

Percent distribution of women and men who favor continuation of female circumcision by type of circumcision preferred, according to selected background characteristics, Eritrea 1995

	WOMEN						MEN					
	Type of circumcision						Type of circumcision					
Background characteristic	Clitori-dectomy	Exci-sion	Infibu-lation	Other/ Missing	Total	Number of women	Clitori-dectomy	Exci-sion	Infibu-lation	Other/ Missing	Total	Number of men
Age												
15-19	56.2	4.7	38.0	1.1	100.0	462	45.1	6.2	32.4	16.3	100.0	57
20-24	52.7	3.8	42.8	0.8	100.0	404	(59.5)	(11.3)	(25.7)	(3.5)	100.0	42
25-29	43.9	4.2	50.6	1.3	100.0	462	41.2	20.8	30.0	8.0	100.0	61
30-34	38.7	7.2	53.1	1.0	100.0	389	(43.0)	(13.0)	(33.3)	(10.7)	100.0	45
35-39	51.6	5.8	40.7	1.9	100.0	383	69.6	9.7	19.6	1.1	100.0	66
40-44	56.9	1.5	40.5	1.1	100.0	401	52.5	12.2	34.8	0.5	100.0	74
45-49	62.6	3.2	33.7	0.5	100.0	369	66.9	6.1	25.8	1.2	100.0	63
50-54	NA	NA	NA	NA	NA	NA	61.3	6.3	29.1	3.3	100.0	56
55-59	NA	NA	NA	NA	NA	NA	(70.6)	(8.7)	(16.6)	(4.1)	100.0	44
Residence												
Urban	80.9	3.6	13.8	1.7	100.0	589	74.5	8.5	11.5	5.4	100.0	100
Asmara	94.5	1.7	1.9	1.9	100.0	306	80.6	3.2	6.5	9.7	100.0	45
Other towns	66.3	5.6	26.7	1.4	100.0	283	69.5	12.9	15.6	2.0	100.0	55
Rural	44.1	4.5	50.4	1.0	100.0	2,280	52.2	11.0	31.7	5.0	100.0	408
Zone												
Southern Red Sea	28.0	4.9	64.7	2.3	100.0	106	(75.7)	(2.4)	(21.9)	(0.0)	100.0	24
Northern Red Sea	17.6	15.1	66.3	0.9	100.0	397	69.7	7.2	18.1	5.0	100.0	63
Anseba	18.7	3.5	75.7	2.0	100.0	393	45.0	6.8	46.3	1.9	100.0	95
Gash-Barka	22.7	1.5	74.4	1.4	100.0	790	21.8	22.7	47.5	7.9	100.0	162
Southern	96.8	2.8	0.5	0.0	100.0	738	92.3	3.9	0.8	3.1	100.0	91
Central	93.3	2.8	2.3	1.6	100.0	446	86.7	2.0	3.9	7.4	100.0	74
Education												
No education	43.9	4.6	50.4	1.0	100.0	2,366	48.9	11.9	34.3	5.0	100.0	357
Primary incomplete	84.0	3.8	10.7	1.5	100.0	288	75.5	5.7	15.1	3.7	100.0	82
Primary complete	94.3	1.4	2.8	1.6	100.0	126	70.8	7.6	12.6	9.0	100.0	40
Secondary+	93.2	1.7	3.7	1.4	100.0	90	(78.8)	(11.3)	(4.8)	(5.0)	100.0	29
Total	51.7	4.3	42.9	1.1	100.0	2,868	56.6	10.5	27.8	5.1	100.0	508

Note: Figures in parentheses are based on 25 to 49 men.
NA = Not applicable

By residence, an overwhelming majority of women in Asmara (95 percent) and two-thirds in other towns prefer clitoridectomy, whereas half of rural women prefer infibulation. In Asmara, preference for clitoridectomy among men is lower (81 percent) and preference for infibulation is higher (7 percent) than among women. However, in other towns and rural areas the proportion of men in favor of infibulation is much lower than among women.

In the Northern and Southern Red Sea Zones two-thirds of women favor infibulation, compared with 18 percent and 22 percent of men, respectively. In the Anseba and Gash-Barka Zones around three-fourths of women—a higher proportion than in the Red Sea Zone—favor infibulation compared with less than half of men. Twenty-three percent of men in the Gash-Barka Zone prefer excision, the highest percent for any zone, compared with only 2 percent of women. There is almost exclusive support for clitoridectomy among women and men in the Southern and Central Zones.

12.4 Reasons for Attitudes Toward Circumcision

Reasons for Supporting Female Circumcision

Respondents who said they favoured continuation of female circumcision were asked why they supported the practice. Table 12.8 summarizes women's and men's responses to the question, "Why do you think female circumcision should be continued?" Respondents were allowed to give as many reasons as they desired.

Looking at the reasons given by female respondents, two reasons, custom and tradition (69 percent) and good tradition (53 percent) were mentioned most frequently. The other reasons mentioned by at least 10 percent of women were: cleanliness (15 percent), preservation of virginity/prevention of immorality (15 percent), and religious demand (12 percent). Four percent of women said they wanted circumcision to be continued because it provides better marriage prospects for girls.

Table 12.8 Reasons for favoring continuation of female circumcision

Percentage of women and of men who favor continuation of female circumcision by specific reasons for their attitude and selected background characteristics, Eritrea 1995

	Residence				Education			
Reason for attitude	Urban	Asmara	Other towns	Rural	No education	Primary incomplete	Primary complete	Secondary+
WOMEN								
Good tradition	50.8	45.2	56.8	54.0	55.6	44.6	41.6	39.9
Custom and tradition	64.9	62.4	67.7	70.6	69.9	70.4	64.6	61.6
Religious demand	6.6	4.8	8.6	13.4	13.3	6.8	3.6	7.1
Cleanliness	14.8	16.7	12.7	15.1	14.5	19.0	17.3	12.6
Better marriage prospects	2.1	1.7	2.5	4.7	4.4	3.4	3.0	2.4
Husband's pleasure	1.4	1.7	1.2	1.4	1.4	1.2	3.3	0.0
Preservation of virginity/ prevention of immorality	22.4	27.5	16.9	13.0	12.6	23.0	27.5	32.0
Other	0.1	0.0	0.2	0.3	0.2	0.4	0.9	0.0
Don't know/missing	0.1	0.2	0.0	0.2	0.2	0.0	0.0	0.8
Number of women	589	306	283	2,280	2,366	288	126	90
MEN								
Good tradition	25.2	21.0	28.6	29.0	29.2	25.8	26.8	(25.7)
Custom and tradition	53.7	45.2	60.7	59.2	59.9	59.0	48.8	(47.6)
Religious demand	6.6	3.2	9.3	18.3	19.0	8.4	9.1	(9.9)
Cleanliness	14.3	9.7	18.0	14.0	16.8	5.9	10.4	(8.6)
Better marriage prospects	9.4	9.7	9.2	2.2	3.6	1.8	5.7	(6.7)
Husband's pleasure	4.4	6.5	2.8	3.6	3.6	4.7	1.8	(6.7)
Preservation of virginity/ prevention of immorality	52.4	66.1	41.2	27.5	24.5	46.9	47.0	(67.6)
Other	0.7	0.0	1.2	0.4	0.0	3.0	0.0	(0.0)
Don't know/missing	0.7	1.6	0.0	0.7	0.8	0.9	0.0	(0.0)
Number of men	100	45	55	408	357	82	40	29

Note: Multiple responses accepted. Figures in parentheses are based on 25 to 49 men.

By residence, the two most common reasons given by women for continuation of circumcision are about equally likely to be mentioned in rural areas and other towns, but slightly less likely to be mentioned in Asmara. The third most mentioned reason for continuing circumcision among women in Asmara and other towns is preservation of virginity or prevention of immorality (28 percent in Asmara and 17 percent in other towns). Compared with women in Asmara, rural women are only half as likely to mention this reason (13 percent). For rural women, the third most common reason is cleanliness (15 percent). This reason is equally likely to be mentioned in urban and rural areas. More than 1 in 8 women in rural areas, 1 in 20 in Asmara, and 1 in 12 in other towns justify their attitude supporting circumcision because they consider it a "religious demand."

Women with no education have the same pattern of responses as observed for rural women. The proportion who cite "custom and tradition" to justify the continuation of circumcision decreases only slightly with increasing education, but "preservation of virginity/prevention of immorality" is mentioned more often and religious demand less often among educated women. Fulfilling a religion demand is cited by one-fifth of Muslims and 1 in 25 Christian women as a reason for supporting circumcision. In contrast, more than one-quarter of Christian women compared with only 5 percent of Muslim women give preservation of virginity or prevention of immorality as a reason. Another difference by religion is in considering "cleanliness" a reason for supporting continuation of circumcision. Christians are twice as likely as Muslims to cite cleanliness as a reason.

For men, the reason most commonly given for continuation of the practice is also custom and tradition (58 percent). However, the next most frequently mentioned reason is preservation of virginity/prevention of immorality. One-third of men gave this reason (more than twice the proportion of women). Twenty-eight percent of men, or almost half the proportion of women, say that the practice should continue because it is a good tradition. Religious demand and "cleanliness" were each mentioned by around 15 percent of men.

Two-thirds of men in Asmara stated that the practice of circumcision should continue for preservation of virginity or prevention of immorality (the most mentioned reason in Asmara). For men in other towns, as among all men who favor continuation of the pratice, this is the second most mentioned reason and for rural men, it is as likely to be mentioned as the reason that circumcision is a good tradition. The higher the level of education, the more likely men are to cite the reason "preservation of virginity/prevention of immorality," from one-quarter of men with no education to two-thirds of men with secondary or higher education. Religious demand on the other hand is twice as likely to be mentioned by men with no education as by those who have at least completed the primary level.

Reasons for Opposing Female Circumcision

Women and men who indicated that they would like to see female circumcision stopped were asked why they opposed the practice. Table 12.9 and Figure 12.3 indicate that 72 percent of women consider female circumcision a bad tradition, 37 percent oppose it because of the medical complications associated with the procedure, and 24 percent consider it a painful personal experience. Smaller proportions say that circumcision is against the dignity of women (14 percent) and that it prevents sexual satisfaction (11 percent). The order of reasons for supporting the discontinuation of circumcision is the same for all background characteristics in the table.

Table 12.9 Reasons for favoring discontinuation of female circumcision

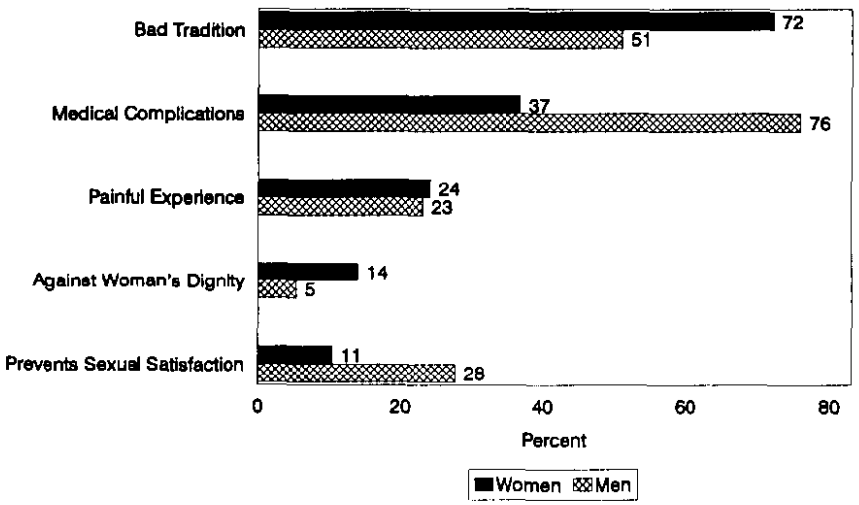
Percentage of women and of men who favor discontinuation of female circumcision by specific reasons for their attitude and selected background characteristics, Eritrea 1995

	Residence				Education			
Reason for attitude	Urban	Asmara	Other towns	Rural	No education	Primary incomplete	Primary complete	Secondary+
WOMEN								
Bad tradition	65.8	65.2	67.4	78.8	79.4	70.9	64.3	65.1
Against religion	1.9	1.0	4.0	1.9	2.5	1.7	1.9	0.9
Medical complications	37.2	33.9	45.6	36.3	31.4	42.7	42.5	36.6
Painful personal experience	27.9	30.0	22.8	20.3	21.7	24.4	24.3	28.6
Against woman's dignity	13.0	13.1	12.8	14.9	14.7	13.9	11.0	14.7
Prevents sexual satisfaction	13.0	13.1	12.6	7.9	7.4	9.6	10.4	17.4
Other	1.5	2.0	0.3	2.2	2.2	1.7	1.1	1.9
Don't know/missing	0.2	0.1	0.3	0.4	0.0	0.0	1.6	0.2
Number of women	988	709	280	952	794	455	288	403
MEN								
Bad tradition	54.2	57.2	45.4	48.0	64.7	48.1	46.1	47.7
Against religion	3.9	2.2	8.7	3.9	10.8	3.1	0.7	2.0
Medical complications	80.1	77.7	86.8	72.2	59.7	78.5	74.0	84.3
Painful personal experience	20.4	22.7	13.9	25.9	15.3	19.0	27.1	29.0
Against woman's dignity	7.5	5.2	14.0	3.3	3.5	3.1	9.8	5.9
Prevents sexual satisfaction	34.5	34.9	33.2	21.3	16.6	21.0	27.8	38.7
Don't know/missing	0.0	0.0	0.0	2.5	3.4	2.3	0.0	0.0
Number of men	223	166	57	239	94	122	81	166

Note: Multiple responses accepted.

The reasons men cite most frequently for being opposed to circumcision are medical complications (76 percent) and bad tradition (51 percent). Additionally, "prevents sexual satisfaction" is cited by 28 percent of men. This reason is also more often mentioned by urban than rural men. The proportion who cite reduction or absence of sexual pleasure as a reason for abolishing the practice increases steadily with level of education from 17 percent among men with no education to 39 percent among men with secondary or higher education. Similarly, as level of education increases, men are more likely to oppose circumcision because it "is a painful personal experience."

Figure 12.3
Reasons for Opposing Female Circumcision



EDHS 1995

CHAPTER 13

LOCAL AVAILABILITY OF FAMILY PLANNING AND HEALTH SERVICES

Use of family planning and health services is determined by supply and accessibility as well as demand. The EDHS included a Service Availability Questionnaire (reproduced in Appendix E) to assess the availability or supply of family planning and health services. In addition, information about the availability of other services in the area was collected to provide a picture of the proximity of the rural population to urban centers, and the accessibility of education and other public and private services.

The Service Availability Questionnaire was applied at the cluster (community) level, that is, one questionnaire was completed for each selected sample cluster. Information was gathered by a specially designated person who accompanied each household listing team. The teams were instructed to gather information by first contacting the local chief or other local official in the area and asking him/her to assemble a group of knowledgeable persons (including some health personnel, if possible) to act as informants. The team leader was then to ask the appropriate questions of this group, facilitating a discussion and encouraging consensus.

The information collected in the Service Availability Questionnaire is linked to each respondent to the Women's Questionnaire in the community to obtain population based estimates. The number of independent data points, however, remains the same as the number of clusters (sample points) for which the information was collected: 15 points for the Southern Red Sea Zone, 37 points for the Northern Red Sea Zone, 25 points for the Anseba Zone, 35 points for the Gash-Barka Zone, 36 points for the Southern Zone, and 60 points for the Central Zone. In total, information was collected from 208 points.

Because of the small number of data points the service availability estimates are subject to larger sampling errors than the estimates based on data from individual women in the main survey.

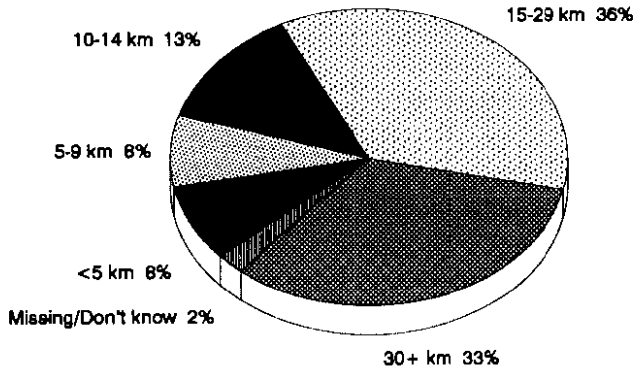
13.1 Service Availability Questionnaire

The EDHS included the Service Availability Questionnaire in order to provide a picture of the proximity of rural clusters to urban centers, educational institutions, health facilities, and other services. A series of questions was included on the availability and distance to various types of educational institutions and programs, as well as health services, personnel, and facilities. The existence of important support services and facilities (including banks, associations, post offices, markets, cinema and public transportation) in the clusters was also determined because they contribute to the quality of life in the clusters and can serve as one indicator of the degree of isolation of the cluster.

13.2 Accessibility of Rural Clusters to Urban Centers

Figure 13.1 shows the percent distribution of rural sampling points by distance to the nearest urban center. Overall, 16 percent of the rural clusters are within 10 km of the nearest urban center, almost half are between 10-29 km and the remaining 33 percent are 30 km or more from an urban cluster. The median distance to the nearest urban center is 18 kilometers (not shown in the figure).

Figure 13.1
Percent Distribution of Rural Sampling Points by Distance to the Nearest Town



EDHS 1995

Table 13.1 shows the percent distribution of rural clusters by the main access road to the nearest urban center, according to distance to the center. For the country as a whole, 17 percent of rural clusters have access to urban centers by all-weather roads, 33 percent by seasonal roads, and 48 percent by paths. Seasonal roads are the main access route for 51 percent of rural areas located less than 15 km from a town while paths provide the main access for 53-56 percent of rural areas located 15 km or more from a town. All-weather roads are slightly less common in rural areas located close to a town (14 percent) than in those further away (18-19 percent).

Table 13.1 Main access route to community

Percent distribution of rural sampling points by main access route to nearest town, according to distance to town, Eritrea 1995

	Main access route					
Distance	All-weather road	Seasonal road	Path	Other	Missing/ Don't know	Total
<15 km	13.8	50.8	35.4	0.0	0.0	100.0
15-29 km	18.1	25.7	56.2	0.0	0.0	100.0
30+ km	19.0	25.3	52.7	1.2	1.7	100.0
Total	17.4	32.8	47.6	0.4	1.9	100.0

Note: Total includes sampling points for which the information on distance to town was missing.

Table 13.2 shows the percentage of rural sampling points using various types of transportation to travel to the nearest urban center, by distance to nearest town. The data show that of all types of transportation, walking is the most mentioned (92 percent), followed by animal or animal driven carts (43 percent), and motorized vehicles (20 percent). In 3 percent of clusters, cycling was mentioned as a means of transportation to the urban centers. The low usage of motorized vehicles may be due to the lack of affordable transportation, as well as the limited number of roads and motorized vehicles.

Table 13.2 Transportation to nearest town

Percentage of rural sampling points by most commonly used types of transportation to the nearest town, according to distance to town, Eritrea 1995

	Means of transportation				
Distance	Motorized	Animal	Walking	Cycling	Other/ Missing
<15 km	20.3	44.2	95.5	6.1	1.0
15-29 km	18.2	26.6	99.7	0.9	0.0
30+ km	22.2	62.7	84.3	0.0	1.3
Total	19.6	43.4	92.1	2.7	2.1

13.3 Availability of Educational Facilities

Table 13.3 shows the distribution of clusters by distance to educational facilities, according to residence. Proximity to schools decreases sharply with increasing level of school. In the country as a whole, more than half of the clusters have a primary school within 5 km, while almost one-fifth are more than 15 km from the nearest primary school. More than one-third of clusters are within 5 km of a middle school, while almost half are more than 15 km away. Secondary schools are least accessible. Only one-fifth of clusters are within 5 km of a secondary school, whereas 42 percent are more than 30 km away. The median distance to secondary schools is 25 km, compared with less than 3 km for primary schools and 13 km for middle schools.

The data indicate that the median distance to each level of school for Asmara and other towns is one kilometer or less for all educational facilities. However, the median distance to the nearest school for clusters in rural areas is 3 km for primary schools, 18 km for middle schools, and 35 km for secondary schools.

Overall, if we consider less than 5 km as a walking distance to reach schools, 63 percent of clusters have primary schools, 35 percent of clusters have middle schools, and 22 percent of clusters have secondary schools within walking distance. Thus, access to educational facilities in Eritrea appears to be low; however, efforts are being made to make them more accessible to the population.

Table 13.3 Distance to nearest educational facility

Percent distribution of sampling points by distance to nearest educational facility, according to residence, Eritrea 1995

Distance to nearest school	Educational facility		
	Primary school	Middle school	Secondary school
Asmara			
<1 km	86.0	63.7	39.0
1-4 km	14.0	36.3	58.9
5-9 km	0.0	0.0	2.1
Total	100.0	100.0	100.0
Median distance	0.6	0.8	1.4
Other towns			
<1 km	94.3	75.8	59.0
1-4 km	5.7	17.5	18.6
5-9 km	0.0	1.5	5.1
10-14 km	0.0	1.6	1.6
15-29 km	0.0	3.6	12.2
30+ km	0.0	0.0	3.5
Total	100.0	100.0	100.0
Median distance	0.5	0.7	0.8
Rural			
<1 km	25.3	7.5	3.5
1-4 km	30.3	15.1	5.4
5-9 km	12.0	9.1	2.6
10-14 km	9.2	7.5	7.7
15-29 km	16.1	20.9	27.4
30+ km	6.7	36.6	50.2
Missing/Don't know	0.3	3.3	3.3
Total	100.0	100.0	100.0
Median distance	3.0	17.6	34.5
Total			
<1 km	36.1	17.8	11.0
1-4 km	26.9	17.3	11.2
5-9 km	10.0	7.7	2.7
10-14 km	7.7	6.4	6.5
15-29 km	13.4	17.7	23.7
30+ km	5.6	30.5	42.1
Missing/Don't know	0.3	2.7	2.7
Total	100.0	100.0	100.0
Median distance	2.5	13.3	25.4

13.4 Availability of Other Facilities and Services

Table 13.4 shows the distribution of sampling points by distance to various facilities and associations, according to residence. The types of facilities included in the questionnaire are post office, local market, cinema, bank, public transportation, women's and youth associations.

Overall, these facilities are fairly accessible to sampling points or clusters in Asmara and other towns. In Asmara, all these facilities are available within 5 km for most clusters. The median distance to the nearest post office, local market, cinema and bank is about 2 km and for other facilities it is only 1 km. The median distance for other towns is less than 1 km to all facilities except the cinema. However, the gap is very large

Table 13.4 Distance to various facilities and associations

Percent distribution of sampling points by distance to various facilities and associations, according to residence, Eritrea 1995

Distance to nearest facility/ Association	Facility/Association						
	Post office	Local market	Cinema	Bank	Public trans-portation	Women's associa-tion	Youth associa-tion
Asmara							
<1 km	24.8	13.0	31.5	13.8	96.4	100.0	44.0
1-4 km	73.1	82.9	68.5	86.2	3.6	0.0	51.8
5-9 km	2.1	4.1	0.0	0.0	0.0	0.0	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	2.1	2.4	1.6	2.4	0.5	0.5	1.4
Other towns							
<1 km	68.3	75.2	46.4	51.5	88.8	93.8	88.4
1-4 km	17.4	21.1	17.4	12.5	11.2	6.2	11.6
5-9 km	3.6	3.6	3.6	3.6	0.0	0.0	0.0
10-14 km	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-29 km	10.6	0.0	14.7	14.4	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	0.7	0.7	1.5	1.0	0.6	0.5	0.6
Rural							
<1 km	2.4	3.0	1.3	1.3	12.7	45.1	37.9
1-4 km	6.8	10.4	0.0	0.0	13.5	3.1	2.7
5-9 km	2.8	9.6	0.9	0.9	10.1	3.0	4.6
10-14 km	11.3	17.3	6.5	6.5	9.0	1.7	1.9
15-29 km	12.7	38.1	15.5	18.8	24.1	17.7	21.9
30+ km	64.0	21.6	75.7	72.5	30.6	29.4	31.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	34.4	15.7	40.7	43.2	15.3	9.1	15.2
Total							
<1 km	11.0	9.5	7.7	6.4	26.4	54.1	42.4
1-4 km	15.2	17.9	7.8	9.1	12.4	3.1	7.9
5-9 km	2.8	8.6	1.1	1.1	8.4	2.5	4.2
10-14 km	9.0	14.4	5.4	5.4	7.4	1.4	1.6
15-29 km	11.1	31.7	14.0	16.7	20.0	14.7	18.2
30+ km	50.9	17.9	64.1	61.4	25.4	24.3	25.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	26.0	14.7	36.9	36.4	10.7	0.9	4.7

when urban and rural accessibility are compared. For rural clusters, the median distance to these facilities ranges from 16 km to a local market to 43 km to a bank. Three-quarters of rural clusters are located more than 30 km from a cinema or a bank, while two-thirds are that far from a post office.

For the country as a whole, the median distance to a cinema, a bank, and a post office is 37 km, 36 km, and 26 km, respectively. Proximity of clusters to public transportation, women's associations, and youth associations is slightly better (11 km, 1 km, and 5 km, respectively). For local markets, the median distance is 15 km.

13.5 Availability of Health Services

Antenatal and Delivery Care Services and Facilities

Table 13.5 presents the distribution of currently married women by distance and time to nearest facility providing delivery care services, according to facility and zone.

The table shows that the median distance to the nearest facility providing delivery care is 8 km, which is also the median distance to health clinics. As expected, women live closer to clinics and health centers than to hospitals providing delivery care. Proximity of facilities for delivery care is better in the Southern Red Sea

Table 13.5 Distance and time to nearest facility providing delivery care

Percent distribution of currently married women by distance and time to nearest facility providing delivery care services, according to facility and zone, Eritrea 1995

Distance/Time to nearest facility	Health facility			Any health facility	Zone					
	Health center	Clinic	Hospital		Southern Red Sea	Northern Red Sea	Anseba	Gash-Barka	Southern	Central
DISTANCE TO NEAREST FACILITY										
<1 km	8.0	12.3	3.1	15.4	2.4	21.1	14.0	9.8	14.8	21.3
1-4 km	18.7	21.4	15.2	23.5	35.4	5.8	24.9	5.6	17.2	64.6
5-9 km	9.6	15.0	1.6	14.5	0.0	5.3	17.9	4.1	31.0	5.5
10-14 km	9.1	9.3	4.8	9.8	0.0	14.1	11.8	2.3	14.2	7.8
15-29 km	20.1	18.1	14.1	16.9	8.3	21.3	0.0	41.6	15.5	0.8
30+ km	21.2	13.7	55.5	14.1	24.9	31.8	31.3	13.7	7.4	0.0
No facility	13.4	10.2	5.7	5.7	29.0	0.6	0.0	22.9	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	13.6	8.6	36.2	8.3	2.8	15.2	7.2	19.6	8.5	2.5
Number of women	3,230	3,230	3,230	3,230	79	431	421	692	1,001	606
TIME TO NEAREST FACILITY										
<15 minutes	6.6	10.3	5.4	10.7	7.3	8.4	4.6	0.2	5.4	37.9
15-29 minutes	10.7	10.0	9.5	11.4	0.0	16.5	6.1	1.5	8.2	29.8
30-59 minutes	7.5	13.4	5.3	13.5	10.7	3.9	26.0	13.0	10.6	17.6
60-119 minutes	19.2	14.3	17.2	20.0	0.0	7.0	30.5	4.8	36.4	14.7
120+ minutes	41.8	41.7	54.9	38.6	53.0	63.6	32.8	57.6	39.4	0.0
No facility	13.4	10.2	5.7	5.7	29.0	0.6	0.0	22.9	0.0	0.0
Missing	0.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,230	3,230	3,230	3,230	79	431	421	692	1,001	606

and Central Zones than in other zones. In the Northern Red Sea and Gash-Barka Zones, facilities providing delivery care are least accessible, with a median distance of at least 15 km. Twenty-nine percent of currently married women in the Southern Red Sea Zone and 23 percent in the Gash-Barka Zone have no access to a facility providing delivery care.

The proportion of currently married women who can reach the nearest facility providing delivery care services within 60 minutes varies by zone from 85 percent in the Central Zone to 15 percent in the Gash-Barka Zone.

Table 13.6 shows various types of antenatal care and delivery care available to women in Eritrea. The table indicates that traditional birth attendants (TBA) are available to 86 percent of currently married women and provide iron supplements to 5 percent and multiple vitamin tablets to 2 percent. Only 10 percent of currently married women have a trained traditional birth attendant available, while 20 percent have a trained midwife (TMW) available to them. Nine percent of women live in areas in which TMWs provide iron supplements and multiple vitamins. Almost one-fourth of women are potentially served by a community health worker.

Traditional birth attendants are more likely, and trained midwives less likely, to be available to women in rural areas, compared with women in urban areas. Trained midwives are less available in the Gash-Barka (8 percent), Southern and Southern Red Sea Zones (around 13 percent in each) than in other zones. TBAs who provide iron supplements or multiple vitamin tablets are almost totally unavailable to women in the Central, Southern, and Northern Red Sea Zones, whereas in the Southern Red Sea and Gash-Barka Zones, TMWs do not distribute these supplements to pregnant women. Women in the Northern Red Sea and Anseba Zones are more likely to live in areas in which iron supplement and multiple vitamin tablets are available from TMWs.

Table 13.6 Antenatal and delivery care

Percentage of women who live in areas with a traditional birth attendant (TBA) available, who can receive iron supplements and multiple vitamins from TBA, who have a trained midwife (TMW) available, who can receive iron and multiple vitamins from TMW, and who have a community health worker in their area, by residence and zone, Eritrea 1995

Residence and zone	Traditional birth attendant available	TBA provides		Trained TBA	TMW available	TMW provides		Community health worker
		Iron supplements	Multiple vitamins			Iron supplements	Multiple vitamins	
Residence								
Urban	78.8	4.3	2.6	26.4	30.4	9.7	9.1	3.3
Asmara	75.0	1.6	0.0	18.0	27.9	7.6	9.9	5.4
Other towns	84.0	8.1	6.2	38.1	33.9	12.5	7.9	0.5
Rural	88.0	4.5	1.3	4.5	15.4	8.5	8.5	29.3
Zone								
Southern Red Sea	69.4	17.3	0.0	0.0	13.6	0.0	0.0	40.3
Northern Red Sea	89.8	0.0	0.0	8.8	24.5	20.8	20.5	52.6
Anseba	77.9	17.5	4.6	11.6	37.4	21.7	18.6	7.9
Gash-Barka	91.3	7.2	4.6	10.5	7.7	0.0	0.0	24.5
Southern	87.2	0.0	0.0	3.8	12.9	3.7	3.7	26.9
Central	82.3	1.2	0.0	18.2	25.2	10.8	12.4	3.8
Total	85.9	4.5	1.6	9.5	18.9	8.8	8.6	23.3

Maternal and Child Health Services

Table 13.7 shows the percent distribution of children by distance to the nearest facility providing maternal and child health (MCH) services, according to type of maternal care received by the mother and vaccination status of the child. The data should show whether women who live closer to MCH services are more likely to use them than those who live further away. The data show that this hypothesis is true, that is, children whose mothers received both antenatal and delivery care were more likely to live within 5 km of a facility providing MCH services (85 percent) than those whose mothers received only one of these services (60 percent) or those whose mothers received neither antenatal nor delivery care (20 percent). Children who are fully vaccinated (69 percent) are more likely than those not fully vaccinated (24 percent) to live within 5 km of a facility providing MCH services. Overall, 41 percent of children live within 5 km of a facility providing MCH services.

Table 13.7 Distance to nearest maternal and child health services for children

Percent distribution of children under three by distance to the nearest facility providing maternal and child health (MCH) services, according to maternal care and vaccination coverage, Eritrea 1995

Distance to nearest facility providing MCH services	All children	Maternal care received			Vaccination coverage[1]		
		ANC and DA	ANC or DA	Neither	All vacci-nations	Some/No vacci-nations	Total
<1 km	27.5	77.8	46.8	6.5	48.5	16.0	28.4
1-4 km	13.5	7.3	13.6	13.4	20.1	8.2	12.8
5-9 km	20.2	5.9	15.5	25.4	21.0	20.4	20.7
10-14 km	7.1	1.5	4.7	9.6	2.6	9.1	6.6
15-29 km	13.7	4.3	12.5	15.0	6.1	18.5	13.8
30+ km	13.1	1.0	4.0	22.9	0.1	19.7	12.2
Service not provided	4.9	2.3	2.9	7.1	1.5	8.0	5.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	7.2	0.6	2.2	10.4	2.0	10.4	7.0
Number of children	2,327	420	1,210	1,117	565	917	1,483

ANC = Antenatal care by doctor, nurse, or trained midwife
DA = Delivery assistance by doctor, nurse, trained midwife, or delivered in a health facility
[1] Figures are for children 1-2 years.

Child Immunization

Table 13.8 shows the distribution of currently married women by distance and time to the nearest facility providing child immunization services, according to type of facility and zone.

The median distance to the nearest facility providing child immunization services is 9 km. However, for 23 percent of women, the distance is 30 km or more. One-fifth of currently married women have no child immunization services available to them in the Gash-Barka Zone, and 29 percent have no facility available in the Southern Red Sea Zone. Median distance to the nearest facility providing child immunization is greatest for women in the Anseba Zone (49 km). In contrast, median distance in the Central Zone is less than 1 km.

Table 13.8 Distance and time to nearest facility providing child immunization

Percent distribution of currently married women by distance and time to nearest facility providing child immunization services, according to facility and zone, Eritrea 1995

Distance/Time to nearest facility	Health facility: Private doctor	Health center	Clinic	Hospital	Any facility	Zone: Southern Red Sea	Northern Red Sea	Anseba	Gash-Barka	Southern	Central
DISTANCE TO NEAREST FACILITY											
<1 km	3.3	11.2	20.6	4.0	24.3	2.4	18.4	9.7	10.5	15.2	72.1
1-4 km	15.0	15.8	11.3	15.4	11.5	35.4	2.8	12.0	1.7	16.8	16.4
5-9 km	1.6	8.0	16.3	2.9	16.0	0.0	2.1	10.4	4.1	41.1	3.7
10-14 km	4.8	7.1	7.5	4.4	6.8	0.0	12.2	0.0	2.3	10.5	7.8
15-29 km	14.1	20.5	14.9	13.5	12.5	8.3	19.3	17.2	21.9	9.1	0.0
30+ km	55.5	31.8	23.7	54.3	23.4	24.9	44.7	50.6	37.2	7.4	0.0
No facility	5.7	5.7	5.5	5.5	5.5	29.0	0.6	0.0	22.2	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	36.2	15.5	8.9	36.0	8.5	2.8	15.7	49.1	28.6	8.1	0.7
Number of women	3,230	3,230	3,230	3,230	3,230	79	431	421	692	1,001	606
TIME TO NEAREST FACILITY											
<15 minutes	5.1	8.4	16.3	5.6	16.6	7.3	8.4	4.6	0.9	7.0	65.9
15-29 minutes	10.0	9.6	6.4	9.9	8.4	0.0	13.9	1.8	1.5	10.4	14.6
30-59 minutes	5.1	7.8	8.4	5.1	7.7	10.7	0.9	13.1	9.2	6.8	8.0
60-119 minutes	17.2	16.0	15.5	17.2	20.7	0.0	3.7	28.4	4.8	42.8	11.5
120+ minutes	54.9	50.7	46.7	54.9	40.0	53.0	72.5	52.1	56.1	33.1	0.0
No facility	5.7	5.7	5.5	5.5	5.5	29.0	0.6	0.0	22.2	0.0	0.0
Missing	2.0	1.8	1.1	1.8	1.1	0.0	0.0	0.0	5.3	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,230	3,230	3,230	3,230	3,230	79	431	421	692	1,001	606

Differentials in the time required to reach the nearest facility providing immunization services are similar to differentials by distance. Almost 90 percent of currently married women in the Central Zone live within one hour of a facility providing immunization services, compared with 12-24 percent of women in the other zones.

Table 13.9 shows the distribution of children under three by distance to nearest facility providing child health services. Thirty-six percent of children are within 5 km of a facility providing child immunization, while 28 percent either have no facility available or live more than 30 km away from a facility. Children show similar distributions for the availability of packets of oral rehydration salts (ORS) for treatment of diarrhea, and for the availability of treatment of acute respiratory illness (ARI). More than 40 percent of children live within 5 km of a facility providing ORS packets and ARI treatment.

Table 13.9 Distance to nearest source of child health services

Percent distribution of children under three by distance to the nearest facility providing child immunization, packets of oral rehydration salts (ORS), and treatment of acute respiratory infection (ARI), Eritrea 1995

Distance to nearest facility	Child health services: Child immunization	ORS packets	ARI treatment
<1 km	24.1	25.2	22.5
1-4 km	12.3	16.0	18.3
5-9 km	17.3	20.6	18.9
10-14 km	6.4	8.1	8.8
15-29 km	11.8	14.1	12.9
30+ km	14.1	9.3	14.8
No facility	14.0	6.7	3.9
Total	100.0	100.0	100.0
Number of children	2,205	2,205	2,205

13.6 Availability of Family Planning Services

Facilities Providing Family Planning Services

Table 13.10 shows the percent distribution of currently married women by time to nearest facility providing family planning services, according to facility and zone. The median distance to the closest facility which provides family planning services is 8 km. However, the median distance is 36 km to hospitals, 28 km to private doctors, and 13 km to health centers. Health clinics and pharmacies are much closer (6 to 8 km). Eighteen percent of women do not have access to any facility that provides family planning services. By zone, it is important to note that 68 percent of women in the Southern Red Sea Zone, 41 percent in the Gash-Barka Zone, and 38 percent in the Northern Red Sea Zone live in areas in which access to family planning is virtually nonexistent. The median distance to facilities providing family planning methods in the other zones is less than 1 km in the Central Zone, 8 km in the Southern Zone, and 20 km in the Anseba Zone.

Table 13.10 Distance and time to nearest facility providing family planning

Percent distribution of currently married women by distance and time to nearest facility providing family planning services, according to facility and zone, Eritrea 1995

	Health facility						Zone					
Distance/Time to nearest facility	Private doctor	Pharmacy	Health center	Clinic	Hospital	Any facility	Southern Red Sea	Northern Red Sea	Anseba	Gash-Barka	Southern	Central
DISTANCE TO NEAREST FACILITY												
< km	1.0	13.7	9.4	14.4	2.8	25.2	32.5	18.4	8.4	12.0	11.5	78.6
1-4 km	4.1	8.5	10.7	6.9	14.5	8.4	0.0	1.0	9.5	1.7	12.2	15.3
5-9 km	0.0	6.9	7.4	10.5	1.6	16.9	0.0	3.9	10.4	7.6	41.1	3.7
10-14 km	0.2	6.7	6.9	5.9	4.3	6.5	0.0	7.1	10.3	2.3	10.5	2.4
15-29 km	2.8	5.9	12.6	4.9	9.1	9.1	0.0	0.6	20.1	11.6	12.7	0.0
30+ km	5.5	11.7	11.7	3.8	47.2	14.0	0.0	31.1	24.4	24.3	4.6	0.0
No facility	86.4	45.0	40.5	51.8	18.4	17.8	67.5	37.8	1.1	40.5	7.3	0.0
Missing/Don't know	0.0	1.6	0.9	1.8	2.1	2.1	0.0	0.0	15.9	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	28.2	8.8	13.0	6.2	36.2	7.8	0.5	30.0	19.7	17.4	8.3	0.6
Number of women	3,230	3,230	3,230	3,230	3,230	3,230	79	431	421	692	1,001	606
TIME TO NEAREST FACILITY												
<15 minutes	1.6	12.5	6.9	12.5	5.4	16.1	7.3	10.2	4.6	2.4	4.8	63.8
15-29 minutes	2.2	4.0	8.2	5.9	9.0	9.1	0.0	10.2	2.3	2.5	10.5	19.6
30-59 minutes	1.0	5.9	6.2	5.6	4.8	7.8	10.7	2.6	8.7	8.2	5.2	14.2
60-119 minutes	2.9	11.8	13.4	6.9	16.9	20.7	0.0	3.7	41.6	11.9	38.2	2.4
120+ minutes	5.9	19.3	23.3	15.6	42.5	26.4	14.5	35.5	25.9	34.5	34.0	0.0
No facility	86.4	45.0	40.5	51.8	18.4	17.8	67.5	37.8	1.1	40.5	7.3	0.0
Missing	0.0	1.6	1.5	1.8	2.9	2.1	0.0	0.0	15.9	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,230	3,230	3,230	3,230	3,230	3,230	79	431	421	692	1,001	606

Overall, 33 percent of women live less than 60 minutes and 26 percent live more than two hours from a facility providing family planning services. As expected, in the Central Zone 64 percent of women can reach a family planning facility in less than 15 minutes, whereas in the other zones, only 2-10 percent have such access.

Specific Contraceptive Methods

Table 13.11 shows the percent distribution of currently married women by distance to the nearest source of specific contraceptive methods. For women who live within 5 km of a facility providing specific methods, the data show that supply methods such as the pill (32 percent) and condoms (28 percent) are slightly more likely to be available than the IUD (24 percent), injectables (23 percent) and female sterilization (16 percent). However, 29-33 percent of women live in areas in which contraceptive methods are not available at all.

Table 13.11 Distance to nearest source for family planning methods

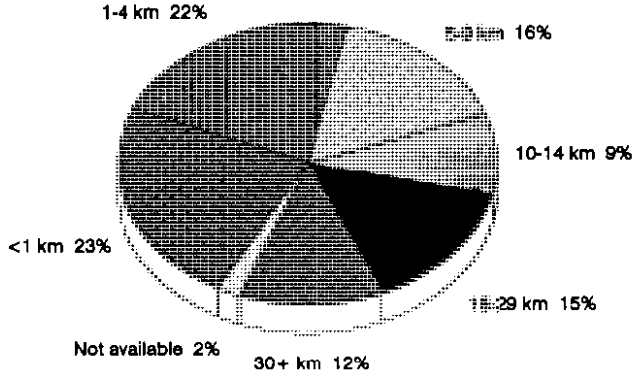
Percent distribution of currently married women by distance to nearest place where specific family planning methods are available, Eritrea 1995

	Family planning method				
Distance to nearest source	Pill	Condom	Inject-ables	IUD	Female sterili-zation
<1 km	23.1	21.7	9.7	11.7	2.2
1-4 km	8.6	6.5	13.2	12.1	13.7
5-9 km	15.1	11.9	7.8	4.6	1.2
10-14 km	6.2	6.0	11.3	8.0	3.4
15-29 km	5.7	6.9	8.2	9.4	5.0
30+ km	12.6	16.7	18.4	22.9	41.2
No facility	28.8	30.2	31.3	31.3	33.3
Total	100.0	100.0	100.0	100.0	100.0
Number of women	3,230	3,230	3,230	3,230	3,230

13.7 Malaria Treatment

Forty-five percent of women live within 5 km of a facility that provides treatment for malaria (see Figure 13.2). At the same time, 27 percent live 15 km or more from a place where malaria treatment is available, and 2 percent have no access at all to such a treatment.

Figure 13.2
Percent Distribution of Women by Distance to the Nearest Facility for Malaria Treatment



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13.8 Health Campaigns

Table 13.12 shows the percentage of married women who were exposed to health campaigns in the year before the survey. Community respondents were asked in the Service Availability Questionnaire if there had been any health campaigns in their locality and, if so, what those campaigns promoted. The data indicate that only 30 percent of women live in areas in which they were exposed to at least one health campaign during the last year. Urban women (54 percent) are more likely than rural women (22 percent) to be exposed to health campaigns. The most common campaigns are those dealing with immunization (22 percent), AIDS prevention (19 percent), iodine deficiency (18 percent), diarrheal disease control (13 percent) and the benefits of breastfeeding (11 percent). Campaigns for drug abuse, vitamin A, and sanitation are less common.

By zone, 2 percent of women were exposed to at least one health campaign in the Southern Red Sea Zone and 10 percent in the Gash-Barka Zone. In other zones, 35 to 47 percent of women live in communities in which one or more health campaigns were launched. The higher the percentage of women who have been exposed to health campaigns, the greater the variety of campaign topics.

Table 13.12 Health campaigns

Percentage of currently married women who were exposed to any health campaign and to specific campaigns in the year before the survey, by residence and zone, Eritrea 1995

Residence and zone	Any health campaign	Benefits of breast-feeding	Immuni-zation	Diarrheal disease control	AIDS	Drug abuse	Vitamin A	Iron defi-ciency	Sanitation	Other
Residence										
Urban	55.4	31.3	34.9	21.7	49.6	12.1	12.5	37.5	5.3	10.8
Asmara	43.5	31.7	32.6	18.3	43.5	16.6	16.4	20.6	0.0	18.2
Other towns	71.8	30.8	38.1	26.3	58.0	5.9	7.0	60.9	12.7	0.5
Rural	22.2	5.3	18.7	10.6	10.5	0.0	7.0	12.5	2.4	3.6
Zone										
Southern Red Sea	2.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Northern Red Sea	46.7	14.2	38.6	13.0	16.2	0.6	2.6	22.2	2.9	0.3
Anseba	18.3	4.7	5.6	4.7	7.2	0.0	1.8	17.2	1.1	0.0
Gash-Barka	9.5	7.3	8.0	7.8	3.8	1.4	0.0	7.8	2.3	0.0
Southern	34.5	4.4	28.8	16.1	22.8	0.6	15.2	22.0	6.6	7.6
Central	44.7	30.9	31.6	21.8	44.7	11.7	15.9	23.9	0.0	15.3
Total	29.8	11.2	22.4	13.1	19.4	2.8	8.3	18.2	3.1	5.2

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APPENDIX A

SAMPLE DESIGN

APPENDIX A

SAMPLE DESIGN

A.1 Introduction

The 1995 Eritrea Demographic and Health Survey (EDHS) covered the population residing in private households throughout the country. The design for the EDHS called for a representative probability sample of 5,000 completed individual interviews with women between the ages of 15 and 49. The sample was designed principally to produce reliable estimates of demographic rates (particularly fertility and childhood mortality rates), of maternal and child health indicators, and of contraceptive knowledge and use for the country as a whole, the capital Asmara, other urban areas, and rural areas. Initially, it was decided that estimates of selected variables would be produced for each of the nine provinces in the country. Thus, there would be four primary and nine secondary reporting domains.

In addition to the main sample of women, the survey called for a sub-sample of about 1,500 men between the ages of 15 and 59 to be interviewed, to allow for the study of AIDS knowledge and other topics.

A.2 Sampling Frame

The Ministry of Local Governments provided the information for constructing a sampling frame for the EDHS: lists of towns and villages with population figures and numbers of households in each unit, by province. The original sources for these data were the provincial administrators' offices; the dates of the lists were between 1992 and 1994. The exact method of how these data were collected was not clear: either they were reported by the village or town leaders or they were estimated by the provincial administrators for the purpose of tax collection. Table A.1 shows the characteristics of this constructed sampling frame.

The lines for totals were given only for the purpose of calculating average household size and village size. They do not reflect the total figures for urban, rural and total population since the data are from different time frames. To estimate the population living in Eritrea according to this frame, adjustments were made regarding missing villages, then projections were made to a common time reference. Tables A.2 and A.3

Table A.1 Characteristics of the sampling frame

Characteristics of the sampling frame by province, Eritrea 1992-1994

		Urban				Rural					Total		
Province	Year of data	Number of towns	Number of households	Population	Household size	Number of villages in frame	Number of missing villages	Number of households	Population	Household size	Number of households	Population	Household size
Akeleguzai	1993	5	8,786	29,500	3.4	492	14	53,958	189,445	3.5	62,744	218,945	3.5
Barka	1994	1	2,448	9,560	3.9	445	0	34,693	156,403	4.5	37,141	165,963	4.5
Dankalia	1993	1	6,393	26,941	4.2	82	0	12,408	75,352	6.1	18,801	102,293	5.4
Gash and Setit	1994	2	4,913	16,364	3.3	389	18	44,907	180,699	4.0	49,820	197,063	4.0
Hamasien	1993	0	-	-	-	145	0	40,859	163,049	4.0	40,859	163,049	4.0
Sahel	1992	2	4,939	18,824	3.8	146	3	29,290	141,585	4.8	34,229	160,409	4.7
Semhar	1993	2	8,917	26,006	2.9	39	3	11,657	51,276	4.4	20,574	77,282	3.8
Senhit	1993	2	14,081	65,594	4.7	264	5	32,866	149,793	4.6	46,947	215,387	4.6
Seraye	1993	2	5,901	21,270	3.6	562	1	75,684	296,018	3.9	81,585	317,288	3.9
Asmara		-	88,889	400,000	4.5	-	-	-	-	-	88,889	400,000	4.5
Total		17	145,267	614,059	4.2	2,564	44	336,322	1,403,620	4.2	481,589	2,017,679	4.2

Table A.2 Estimated population of Eritrea according to the 1994 sampling frame

Estimated population of Eritrea according to the 1994 sampling frame and distribution of registered voters, by province

Province	Projected 1994 population		Percent urban	Registered voters
	Number	Percent		
Akeleguzai	230,966	11.0	13.2	12.2
Barka	165,963	7.9	5.8	6.7
Dankalia	105,330	5.0	26.4	3.8
Gash and Setit	205,433	9.8	8.0	10.6
Hamasien	167,847	8.0	0.0	10.0
Sahel	173,112	8.2	11.5	7.1
Semhar	83,644	4.0	32.0	4.7
Senhit	224,711	10.7	30.1	10.8
Seraye	327,189	15.6	6.7	16.5
Asmara	416,324	19.8	100.0	17.4
Total	2,100,519	100.0	30.3	100.0

Table A.3 Estimated population of Eritrea according to the FAO

Estimated population of Eritrea according to the FAO (end of 1993) by province

Province	Projected population (end of 1993)		Percent urban
	Number	Percent	
	Low estimates		
Akeleguzai	281,000	12.2	12.1
Barka	154,000	6.7	8.4
Dankalia	88,000	3.8	25.0
Gash and Setit	245,000	10.7	8.2
Hamasien	231,000	10.0	0.0
Sahel	162,000	7.0	11.7
Semhar	109,000	4.7	27.5
Senhit	250,000	10.9	25.2
Seraye	380,000	16.5	11.6
Asmara	400,000	17.4	100.0
Total	2,300,000	100.0	28.0
	High estimates		
Akeleguzai	342,000	12.2	12.0
Barka	187,000	6.7	8.0
Dankalia	107,000	3.8	25.2
Gash and Setit	298,000	10.6	8.1
Hamasien	281,000	10.0	0.0
Sahel	197,000	7.0	11.7
Semhar	133,000	4.8	27.8
Senhit	304,000	10.9	25.0
Seraye	463,000	16.5	11.7
Asmara	488,000	17.4	100.0
Total	2,800,000	100.0	28.0

show the results of these adjustments together with the distribution of the number of registered voters and the estimations made by FAO.[1]

Even though the population estimated from the sampling frame was low compared with the FAO estimates, the provincial distribution was not far off from the one derived from the number of registered voters. It was concluded therefore that, in the absence of a more suitable frame, this one could be used for selecting the villages in the rural areas. An update of the population size would be carried out during the mapping and household listing operation of the selected villages prior to household selection for the survey.

For the urban areas, more research had to be done concerning a suitable urban sampling unit. All that existed at the time were estimated population figures for Asmara and other towns. For Asmara, the old administrative unit, the *kebele,* could be used as the primary sampling unit; however, it could be large, and some would need further segmentation. Between August 1994 and January 1995, the NSO collected data on *zobas* and *mimihidars* for all the towns of Eritrea. Although the *mimihidars* were generally large (ranging from 40 to 2,390 households, with an average of 620), it was decided that they could be used as sampling units for the EDHS since no other units existed. Segmentation of the large *mimihidars* was necessary, from which only one segment was retained for the survey.

For Asmara, the decision was made to use the *mimihidars* as sampling units; however, reliable population size did not exist for these *mimihidars*. Therefore, the measure of size used for sample selection was the number of registered voters, from which the number of households and the population size were estimated.

A.3 Characteristics of the EDHS Sample

The sample for the EDHS was selected from the sampling frame in two stages. In the first stage, 208 primary sampling units (PSUs) were selected with probability proportional to size. In rural areas, each PSU corresponded to a village. In urban areas, each PSU corresponded to a *mimihidar*, or to one segment of a *mimihidar* when the *mimihidar* had more than 400 households according to the sampling frame.

A complete listing of the households in the selected PSUs was carried out. The lists of households obtained were used as the frame for the second-stage sampling, which was the selection of the households to be visited by the EDHS interviewing teams during the main survey fieldwork. Women between the ages of 15 and 49 were identified in these households and interviewed. Men between the ages of 15 and 59 were also interviewed in a subsample of these households.

A.4 Sample Allocation

Table A.4 shows the distribution of the population in Eritrea by province, according to the registration of adults who resided in Eritrea, for the referendum that took place in 1993. As previously discussed, this distribution was considered more reliable than the distribution derived from the sampling frame.

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[1] Food and Agriculture Organization. 1994. *Eritrea - Agricultural Sector Review and Project Identification.* Volume 2. April 1994. In this report, population estimates were made using the results of the registration for the referendum adjusted for (1) non-coverage among Eritreans residing in the country, (2) the ratio of Eritreans under the age of 18 to the total domestic population, and (3) the number of returnees since the end of registration. Both low and high estimates were given.

Table A.4 Estimated population distribution and sample allocation

Estimated population distribution by province, according to referendum registration and allocation of the sample proportionally as well as according to two alternative procedures

Province	Population distribution		Proportional sample allocation			First alternative sample allocation			Second alternative sample allocation		
	Distribution by province	Proportion urban	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Akeleguzai	12.2	12.0	73	538	611	54	396	450	139	311	450
Barka	6.7	8.0	27	308	335	36	414	450	53	397	450
Dankalia	3.8	25.2	48	144	192	113	337	450	90	360	450
Gash and Setit	10.6	8.1	43	488	531	36	414	450	82	368	450
Hamasien	10.0	0.0	0	502	502	0	400	400	0	400	400
Sahel	7.1	11.7	41	312	353	53	397	450	78	372	450
Semhar	4.7	27.8	66	170	236	125	325	450	122	328	450
Senhit	10.8	25.0	136	406	542	113	337	450	256	194	450
Seraye	16.5	11.7	97	730	827	53	397	450	180	270	450
Asmara	17.4	100.0	871	0	871	1000	0	1000	1000	0	1000
Total	100.0	28.0	1,402	3,598	5,000	1,583	3,417	5,000	2,000	3,000	5,000

The provinces, stratified by urban and rural areas, constituted the sampling strata. There were thus 18 strata with Asmara and Hamasien constituting each an entire stratum. A proportional allocation of the target number of 5,000 women to the 18 strata would yield the sample distribution in Table A.4.

The proportional allocation in Table A.4 would result in a completely self-weighting sample but would not allow for reliable estimates for Asmara, for other urban areas, or for the provinces individually. Results of other demographic and health surveys show that a minimum sample of 1,000 women is required in order to obtain estimates of fertility and childhood mortality rates at an acceptable level of sampling errors. Given that the total sample size for the EDHS could not be increased to achieve the required level of sampling errors, it was decided that estimates of complex rates would not be produced at the provincial level. Since some of the provinces are quite small and would be allocated small sample size, it was also decided that an equal sample would be allocated to each of the 9 provinces for estimates of selected variables other than complex rates. The first alternative sample allocation given in Table A.4 was considered after taking into account three different factors: (1) a minimum sample of 1,000 women with completed interviews for Asmara; (2) equal allocation of the remaining 4,000 women to each province (450 women each) except Hamasien, which received 400 women since it did not contain any urban areas; and (3) proportional allocation to urban and rural areas within provinces.

This first alternative allocation still did not allow for estimates of complex rates for other urban areas outside of Asmara. In the second alternative allocation given in Table A.4, other urban areas were oversampled to the minimum 1,000 women while conditions (1) oversampling of Asmara, and (2) allocation of the remaining 4,000 women equally to the provinces, were maintained. The 1,000 women for other urban areas were then allocated proportionally to each province according to the contribution of the province to the total urban population (except Asmara). For the distribution of the urban population (without Asmara), the estimates provided by FAO were used instead of the distribution derived from the sampling frame. FAO estimated the total urban population of Eritrea to be 28 percent, while the estimate from the sampling frame was 30.3 percent, which was judged to be high. As can be seen from Table A.3, the distribution is close for most of the provinces in the two estimates.

In the second alternative, the urban areas were oversampled by an average factor of 1.8 relative to the rural areas, with the highest oversampling factor in Seraye, and the lowest in Dankalia. In fact, in Dankalia, urban areas were slightly undersampled. The oversampling factors of urban areas are the following: 2.6 for Akeleguzai, 1.5 for Barka, 0.8 for Dankalia, 2.2 for Gash and Setit, 1.5 for Sahel, 1.0 for Semhar, 2.3 for Senhit and 3.4 for Seraye. This allocation was considered to be more suitable given the conditions imposed.

The number of households to be selected for each stratum was calculated as follows:

$$\textit{Number of HHs} = \frac{\textit{Target number of women}}{\textit{Number of women per HH} \times \textit{Overall response rate}}$$

According to a study conducted for NSO,[2] the proportion of women aged 15-49 in Eritrea was 21.4 percent. By applying this figure to the average household size of 4.2 (according to the sampling frame), the number of women aged 15-49 was estimated to be 0.9 per household. The overall response rate of 90 percent (95 percent for households and 95 percent for women) was the average overall response rate found in DHS surveys conducted in Sub-Saharan Africa. Using these two parameters in the above equation, we would expect to select more than 6,000 households in order to yield the target sample of 5,000 women. This is shown in the Table A.5.

The number of sample points (or clusters) to be selected for each stratum was calculated by dividing the selected number of households by the average take in the cluster. Analytical studies of similar surveys

Table A.5 Distribution of samples of clusters, women and households

Distribution of samples of clusters, women, and households for the 1995 EDHS by province

	Expected number of households to be selected			Number of clusters selected			Expected number of women with completed interviews			Final number of households to be selected		
Province	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Akeleguzai	172	384	556	7	11	18	142	312	454	175	385	560
Barka	65	490	555	3	14	17	61	397	458	75	490	565
Dankalia	111	444	555	4	13	17	81	369	450	100	455	555
Gash and Setit	101	454	555	4	13	17	81	369	450	100	455	555
Hamasien	0	494	494	0	15	15	0	425	425	0	525	525
Sahel	96	459	555	4	13	17	81	369	450	100	455	555
Semhar	151	405	556	6	12	18	122	340	462	150	420	570
Senhit	316	240	556	13	7	20	263	198	461	325	245	570
Seraye	222	333	555	9	10	19	182	284	466	225	350	575
Asmara	1,235	0	1,235	50	0	50	1,013	0	1,013	1,250	0	1,250
Total	2,469	3,703	6,172	100	108	208	2,026	3,063	5,089	2,500	3,780	6,280

[2] Habtemariam Tesfaghiorghis and Zemichael Desta. 1993. *Population Projections of Eritrea: 1993-2028.* Paper prepared at the Australian National University. Although the paper was in draft form and not intended for citation, it was understood that only the projected population figures were sensitive and not for citation. The distribution of the population by age group and sex was included here because it was in line with distributions in other sub-Saharan countries.

suggest that the optimum number of households (or women)[3] to be interviewed is around 20-25 in each urban cluster and 30-35 in each rural cluster. If we expected, on average, 25 households in each urban cluster and 35 households in each rural cluster—thus interviewing 20 women per urban cluster and 28 women per rural cluster—the distribution of clusters would be as indicated in Table A.5. (Because of rounding errors, the number of clusters in Hamasien and Asmara would have yielded a slightly smaller number of women than expected. Consequently, the number of clusters in these 2 strata was increased by one each so that the resulting number of women would not fall short of the minimum imposed, 1,000 for Asmara and 400 for Hamasien.)

In an ideal situation, one would select an even number of clusters in each stratum in order to minimize sampling errors, as forming pairs of clusters is the recommended procedure for calculating sampling errors (however, groups of three clusters are also allowed). In the case of Eritrea, forcing even numbers of clusters in each stratum would distort the desired sample allocation substantially since the stratum sample is small.

Table A.5 also shows the resulting expected number of women with completed interviews and the expected number of households to be selected when the number of clusters to be selected is as proposed.

A.5 Stratification and Systematic Selection of Clusters

Rural Areas

According to the sampling frame, Eritrean villages vary greatly in size, from a minimum of 2 households to a maximum of 1,648 households. Selecting villages with probability proportional to size without some measure of size stratification would ensure that mostly large villages were selected and thus would not give proper representation to the small villages. The decision was made to stratify the villages by size: within each stratum, the villages were classified into small, medium or large size, each category containing one-third of the rural population of the province according to the sampling frame. The list of villages was then ordered by size and then geographically before selection, independently for each stratum.

The selection procedure for each stratum consisted of:

(1) calculating the sampling interval for the stratum:

$$I = \frac{\sum_i M_i}{a}$$

where ΣM_i is the size of the stratum (total number of households in the stratum according to the sampling frame) and a is the number of villages to be selected in the stratum;

(2) calculating the cumulated size of each village;

(3) calculating the series of sampling numbers $R, R+I, R+2I, \ldots, R+(a-1)I$, where R is a random number between 1 and I; and

[3] This optimum number has been used for both households and women, as the average number of women per household is usually 1.0 in sub-Saharan Africa. In the case of Eritrea, it was proposed (for reasons of sampling probability) that it be used for households, thus resulting in a smaller number of women.

(4) comparing each sampling number with the cumulated sizes.

Each village to be selected is the first one on the list whose cumulated size is greater or equal to the sampling number.

A dBase program to stratify and select the villages was developed and executed after the sampling frame was organized in dBase format. Also, for reasons of practicability, villages that had fewer than 10 households in the sampling frame was excluded before selection. These amounted to 19 villages with a population of 545 or 0.02 percent of the population covered by the frame.

Urban Areas

In Asmara and in other towns, the *mimihidars* were selected in each town with probabilities proportional to size. The number of *mimihidars* to be selected was proportional to the size of the town. The selection procedure for each town was similar to that of the villages. The sampling interval for the *mimihidar* was calculated as:

$$I = \frac{\sum_i M_i}{a}$$

where ΣM_i is the size of the town (total population according to the sampling frame) and a is the number of *mimihidars* to be selected in the town.

A.6 Segmentation of Large PSUs

The largest PSU in the sampling frame had 2,391 households. If this PSU happened to be selected, it would require enormous time and effort to list the households that it contained. For each PSU (*mimihidar* or village), an upper limit of 400 households was then imposed, i.e., any selected PSU that exceeded this upper limit was segmented into several segments, only one of which was retained for the survey. The rules for segmentation were:

Number of households	401 - 600	..... segment into 2
Number of households	601 - 800	..... segment into 3
Number of households	801 - 1000	..... segment into 4, etc.

Segmentation was done in the field during the mapping and household listing.

A.7 Grouping of Small Villages

It is also desirable that selected villages that are small in size (those that would not provide the desired number of households to be selected) be grouped with neighboring villages prior to selection. However, this is only possible if villages that are next to each other in the sampling frame are also adjacent in the field. In the case of Eritrea, because of the size stratification, it was no longer true that neighboring villages in the frame are also neighboring villages in the field. Besides, even if size stratification were not the case, this was only true for 3 provinces (Dankalia, Hamasien, and Sahel) where maps that show villages were available and thus allowed for manually rearranging the villages in a geographic serpentine manner. For other provinces, villages in the sampling frame followed the order that was given by the provincial administrator's office. A spot check of this order in Hamasien showed that it was either approximately geographic or totally random. Consequently, it was decided that small villages not be grouped beforehand. If, during the mapping and household listing, the village was found to be truly small and did not provide the desired number of households, then a neighboring village would be added to this selected village and listed

as well. Of course, the probability of selection as well as the interval for household selection for this group of villages would have to be recalculated accordingly.

A.8 Sampling Probabilities of Selected PSUs

The sampling probabilities were calculated separately for each of the two sampling stages, and independently for each stratum. The following notations were used:

P_{1i} sampling probability for the ith PSU (*mimihidar* or village) selected for the EDHS
P_{2i} sampling probability for the household in the ith PSU.

In the case of simple PSUs, i.e., PSUs that were not segmented or grouped, let a be the number of PSUs selected in a given stratum, M_i the size (number of households according to the sampling frame) of the ith PSU in the stratum, and ΣM_i the total size of the stratum (number of households according to the sampling frame). The probability of inclusion of a PSU in the sample is calculated as follows:

$$P_{1i} = \frac{aM_i}{\sum_i M_i}$$

In the second stage, a number b_i of households were selected from the number M_i' of households newly listed in each selected PSU by the EDHS teams. This resulted in:

$$P_{2i} = \frac{b_i}{M_i'}$$

In order for the sample to be self-weighting within the stratum, the overall probability $f = P_{1i}.P_{2i}$ must be the same for each household within the stratum. This implies that:

$$P_{1i}.P_{2i} = \frac{aM_i}{\sum_i M_i}.\frac{b_i}{M_i'} = f$$

where f is the sampling fraction calculated separately for each stratum:

$$f = \frac{n}{N}$$

where n is the number of households selected in the stratum and N is the number of households that exist in the stratum in 1995, at the time of listing fieldwork.

The selection of the households was systematic with equal probability and the selection interval was calculated as follows:

$$I_i = \frac{1}{P_{2i}} = \frac{P_{1i}}{f}$$

In the case of segmented PSUs, an intermediary sampling stage was introduced between the first and second sampling stage. This selection stage is not considered an effective stage but only a pseudo-stage in order to reduce the size of the PSU. Let t_i be the number of segments created in the ith PSU. Note that t_i = 1 when there was no segmentation. The sampling probabilities were:

$$P_{1i} \cdot P_{2i} = \frac{aM_i}{\sum_i M_i} \cdot \frac{1}{t_i} \cdot \frac{b_i}{M_{ij}'} = f$$

where M_{ij}' was the number of households newly listed by the EDHS team in the jth segment of the ith PSU.

In the case of grouped villages, the only parameter that changed was M_i which was the combined size of the villages in the group.

Because of the non-proportional distribution of the sample to the different strata, sampling weights were required to ensure the actual representativeness of the sample at the national level.

A.9 Male Survey

In a subsample of the households selected for the main survey, men between the ages of 15 and 59 were interviewed with a male questionnaire. According to the following calculations, using statistics from the same sources as those for the women, the expectation was to reach a sample of approximately 1,400 men in one-third of the households selected for the main survey:

Total number of households selected	6,280
Number of households selected for male survey (1/3)	2,093
Number of households with completed interviews (95%)	1,988
Number of males 15-59 per household (household size 4.2, 21.5% male)	0.90
Number of males 15-59 found	1,789
Response rate for males (average for sub-Saharan Africa)	0.80
Number of males 15-59 with completed interviews	1,431

The households for the male survey were systematically selected with a random start and an interval of 3 from the list of households selected for the main survey for each cluster.

A.10 New Reporting Domains

As mentioned earlier, the sample design and implementation were based on the former administrative provinces. In early 1996, in an effort to enhance socioeconomic development and maintain efficient and effective management, the Government of Eritrea reorganized the ten provinces into six new administrative units called *zones*. The new zones were formed by merging two or more former provinces, except in the case of the Southern Red Sea Zone, which only includes part of former Dankalia. Since former villages were left intact during the new reorganization, i.e., no former village cut across two different zones, it was possible for the EDHS to rearrange the sampled clusters following the new administrative hierarchy.

The new zones were organized as follows:

(1) The *Southern Red Sea* zone includes almost all of the villages of the former province of Dankalia.

(2) The *Northern Red Sea* zone includes parts of the former provinces of Sahel, Semhar, Hamasien and Akeleguzai.

(3) The *Anseba* zone includes parts of the former provinces of Senhit, Sahel, Barka and Hamasien.

(4) The *Gash-Barka* zone includes parts of the former provinces of Gash and Setit and Barka.

(5) The *Southern* zone includes a major part of the former provinces of Akeleguzai and Seraye, and a small part of Hamasien province.

(6) The *Central* zone includes Asmara, and all villages of Hamasien that are within a 25 km radius of Asmara.

Although the sample design was based on the previous administrative provinces, the survey results were produced for the new zones which will be more useful to planners and policymakers who will be working with the new administrative hierarchy.

A.11 Sample Implementation

The response rates presented in Chapter 1 provide information on sample implementation for the country as whole and for urban and rural areas. Table A.6.1 presents the percent distribution of households and eligible women in the EDHS by results of the interview according to zone and urban-rural residence. The corresponding data for eligible men is presented in Table A.6.2. For women and men, the household response rates for all zones except the Southern Red Sea Zone are between 96 and 99 percent. For the Southern Red Sea Zone, the response rates are 78 and 79 percent, respectively. The main reason for the lower rates in this zone is that 15 percent of the households selected were not found. This is because 65 households (two clusters) could not be contacted for security reasons. The Southern Red Sea Zone also had 20-21 percent of households absent for a long period of time when contacted for the interview. However, the eligible woman response rate for the Southern Red Sea Zone is only slightly lower than for other zones: 94 percent, compared with 95 to 99 percent.

As in most countries, response rates for eligible men are lower than for eligible women. The response rates for men range from 84 percent in the Southern Red Sea Zone to 94 percent in the Southern Zone.

Table A.6.1 Sample implementation: women

Percent distribution of households and eligible women in the EDHS sample by results of the interviews and household, eligible women, and overall response rates, according to zone and urban-rural residence, Eritrea 1995

	Zone						Residence		
Result	Southern Red Sea	Northern Red Sea	Anseba	Gash-Barka	Southern	Central	Urban	Rural	Total
Selected households									
Completed (C)	60.4	80.0	88.7	88.2	93.2	95.2	91.7	84.4	87.4
Household present but no competent respondent at home (HP)	0.9	0.9	2.3	1.4	0.6	1.0	0.9	1.3	1.1
Refused (R)	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Dwelling not found (DNF)	15.0	0.6	0.1	2.0	0.0	0.1	0.4	2.5	1.6
Household absent (HA)	20.4	14.6	4.8	5.7	2.3	1.7	3.1	9.3	6.7
Dwelling vacant (DV)	0.2	3.1	2.7	1.9	3.2	1.6	2.8	1.8	2.3
Dwelling destroyed (DD)	0.7	0.6	0.9	0.8	0.6	0.2	1.0	0.2	0.6
Other (O)	2.2	0.2	0.4	0.0	0.0	0.1	0.1	0.4	0.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	447	1,213	743	1,146	1,081	1,628	2,564	3,694	6,258
Household response rate (HRR)[1]	78.9	98.2	97.3	96.3	99.3	98.8	98.6	95.7	96.9
Eligible women									
Completed (EWC)	93.5	97.0	96.2	95.1	98.7	95.8	96.9	95.6	96.3
Not at home (EWNH)	4.5	0.8	2.4	3.8	0.2	2.1	1.5	2.6	2.0
Refused (EWR)	0.0	0.8	0.0	0.1	0.0	0.1	0.0	0.3	0.2
Partly completed (EWPC)	0.3	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1
Incapacitated (EWI)	1.7	1.2	0.9	0.7	1.0	1.4	1.1	1.2	1.2
Other (EWO)	0.0	0.0	0.5	0.3	0.0	0.4	0.3	0.2	0.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	292	828	581	877	863	1,809	2,600	2,650	5,250
Eligible woman response rate (EWRR)[2]	93.5	97.0	96.2	95.1	98.7	95.8	96.9	95.6	96.3
Overall response rate (ORR)[3]	73.8	95.2	93.7	91.6	98.0	94.6	95.5	91.5	93.3

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, refused, and dwelling not found. The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and woman response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + R + DNF} \times 100$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWR + EWPC + EWI + EWO} \times 100$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = (HRR \times EWRR) \div 100$$

Table A.6.2 Sample implementation: men

Percent distribution of households and eligible men in the EDHS sample by results of the interviews and household, eligible men, and overall response rates, according to zone and urban-rural residence, Eritrea 1995

	Zone						Residence		
Result	Southern Red Sea	Northern Red Sea	Anseba	Gash-Barka	Southern	Central	Urban	Rural	Total
Selected households									
Completed (C)	59.2	82.0	87.6	88.6	92.2	94.6	91.9	84.1	87.3
Household present but no competent respondent at home (HP)	2.0	1.2	2.4	2.1	0.8	1.1	1.1	1.8	1.5
Refused (R)	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0
Dwelling not found (DNF)	15.0	0.7	0.0	2.3	0.0	0.2	0.5	2.5	1.7
Household absent (HA)	21.1	11.6	4.8	4.9	2.2	1.7	2.7	8.4	6.0
Dwelling vacant (DV)	0.0	3.2	2.4	1.6	4.2	1.9	2.5	2.4	2.4
Dwelling destroyed (DD)	0.7	0.7	2.0	0.5	0.6	0.4	1.3	0.3	0.7
Other (O)	2.0	0.5	0.8	0.0	0.0	0.0	0.0	0.6	0.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	147	406	249	385	359	540	853	1,233	2,086
Household response rate (HRR)[1]	77.7	97.7	97.3	95.3	99.1	98.5	98.2	95.1	96.5
Eligible men									
Completed (EMC)	83.7	87.7	89.1	82.4	93.9	88.7	90.6	85.3	87.9
Not at home (EMNH)	9.3	9.6	8.6	15.0	2.5	6.6	5.8	10.7	8.3
Refused (EMR)	0.0	0.5	0.0	0.0	0.5	0.9	0.6	0.3	0.5
Partly completed (EMPC)	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
Incapacitated (EMI)	3.5	1.6	2.3	1.8	3.0	3.4	2.9	2.5	2.7
Other (EMO)	2.3	0.5	0.0	0.9	0.0	0.5	0.0	1.1	0.6
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	86	187	128	227	198	441	620	647	1,267
Eligible man response rate (EMRR)[2]	83.7	87.7	89.1	82.4	93.9	88.7	90.6	85.3	87.9
Overall response rate (ORR)[3]	65.0	85.6	86.7	78.5	93.1	87.3	89.1	81.2	84.8

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, refused, and dwelling not found. The eligible man response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed, incapacitated and "other." The overall response rate is the product of the household and man response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + R + DNF} \times 100$$

[2] Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{EMC}{EMC + EMNH + EMR + EMPC + EMI + EMO} \times 100$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = (HRR \times EMRR) \div 100$$

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the EDHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the EDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the EDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the EDHS is the ISSA Sampling Error Module. This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$var(r) = \frac{1-f}{x^2} \sum_{h=1}^{H} \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r.x_{hi} \text{ , and } z_h = y_h - r.x_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the hth stratum,
y_{hi} is the sum of the values of variable y in the ith cluster in the hth stratum,
x_{hi} is the sum of the number of cases in the ith cluster in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the EDHS, there were 206 non-empty clusters. Hence, 206 replications were created. The variance of a rate r is calculated as follows:

$$ET^2(R) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 206 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 205 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the EDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for Asmara, and for the six zones. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.12 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). Estimates and sampling errors of total fertility and childhood mortality rates only apply to the national sample, the urban and rural samples, and for Asmara. In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women aged 15-49*) can be interpreted as follows: the overall average from the national sample is 3.007 and its standard error is .05. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e.,. 3.007±2×.05. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 15 to 49 is between 2.907 and 3.107.

Sampling errors are analyzed for the national sample of women and for two separate groups of estimates: (1) means and proportions of at least 1 percent, and (2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 1.5 percent and 11.7 percent with an average of 5 percent; the highest relative standard errors are for estimates of very low values (e.g., *currently using pill* among women who were currently married). If estimates of very low values (less than 10 percent) were removed, than the average drops to 4.5 percent. So, in general, relative standard errors for most estimates for the country as a whole are small, except for estimates of very small proportions. The relative standard error for the total fertility rate is small, 3.6 percent. However, for the mortality rates, the average relative standard error is higher, 8.9 percent.

There are differentials in the relative standard error for estimates of sub-populations. For example, for the variable *currently married (in union)*, relative standard errors as a percent of the estimated mean for the whole country, for Asmara, and for other urban areas are 1.7 percent, 2.4 percent, and 3.9 percent, respectively.

For the total sample, the value of the design effect (DEFT) averaged over all variables is 1.54, which means that, due to multi-stage clustering of the sample, variance is increased by a factor of 2.4 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Eritrea 1995

Variable	Description	Base population
	WOMEN	
No education	Proportion	All women 15-49
With secondary education or higher	Proportion	All women 15-49
Never married (in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	Women 20-49
Had first sexual intercourse before 18	Proportion	Women 20-49
Children ever born	Mean	All women 15-49
Children ever born to women over 40	Mean	Women aged 40-49
Children surviving	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Using public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women 15-49
Want to delay at least two years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49
Mothers received tetanus injection	Proportion	Births in last three years
Mothers received medical care at birth	Proportion	Births in last three years
Had diarrhea in the last two weeks	Proportion	Children under three
Treated with ORS packets	Proportion	Children under 3 with diarrhea in last 2 weeks
Consulted medical personnel	Proportion	Children under 3 with diarrhea in last 2 weeks
Having vaccination card, seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (three doses)	Proportion	Children 12-23 months
Received polio vaccination (three doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height (below -2 SD)	Proportion	Children 0-35 months
Height-for-age (below -2 SD)	Proportion	Children 0-35 months
Weight-for-age (below -2 SD)	Proportion	Children 0-35 months
Total fertility rate (three years before survey)	Rate	Women-years of exposure to child-bearing
Neonatal mortality rate(0-9 years before survey)	Rate	Number of children exposed to death
Postneonatal mortality rate(0-9 yrs before survey)[1]	Rate	Number of children exposed to death
Infant mortality rate[2] (0-9 years before survey)[1]	Rate	Number of children exposed to death
Child mortality rate[2] (0-9 years before survey)[1]	Rate	Number of children exposed to death
Under five mortality rate (0-9 years before survey)[1]	Rate	Number of children exposed to death
	MEN	
No education	Proportion	All men 15-59
With secondary education or higher	Proportion	All men 15-59
Never married (in union)	Proportion	All men 15-59
Currently married (in union)	Proportion	All men 15-59
Knowing any contraceptive method	Proportion	Currently married men 15-59
Knowing any modern contraceptive method	Proportion	Currently married men 15-59
Ever used any contraceptive method	Proportion	Currently married men 15-59
Currently using any method	Proportion	Currently married men 15-59
Currently using a modern method	Proportion	Currently married men 15-59
Currently using pill	Proportion	Currently married men 15-59
Currently using IUD	Proportion	Currently married men 15-59
Currently using injectables	Proportion	Currently married men 15-59
Currently using condom	Proportion	Currently married men 15-59
Currently using female sterilization	Proportion	Currently married men 15-59
Currently using periodic abstinence	Proportion	Currently married men 15-59
Want no more children	Proportion	Currently married men 15-59
Want to delay at least two years	Proportion	Currently married men 15-59
Ideal number of children	Mean	All men 15-59

[1] For total sample 0-4 years before survey
[2] Unadjusted rate

Table B.2 Sampling errors - National sample: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	0.659	0.013	5054	5054	1.986	0.020	0.633	0.686
With secondary education or higher	0.160	0.008	5054	5054	1.535	0.049	0.144	0.176
Never married (in union)	0.200	0.007	5054	5054	1.302	0.037	0.185	0.214
Currently married (in union)	0.667	0.012	5054	5054	1.760	0.017	0.644	0.690
Married before age 20	0.723	0.011	3917	3925	1.524	0.015	0.701	0.744
Had first sexual intercourse before 18	0.659	0.013	3917	3925	1.657	0.019	0.633	0.684
Children ever born	3.007	0.050	5054	5054	1.174	0.016	2.907	3.106
Children ever born to women over 40	6.231	0.123	1072	1120	1.369	0.020	5.985	6.477
Children surviving	2.461	0.037	5054	5054	1.068	0.015	2.387	2.536
Knowing any contraceptive method	0.639	0.022	3144	3371	2.510	0.034	0.596	0.682
Knowing any modern method	0.620	0.020	3144	3371	2.352	0.033	0.580	0.661
Ever used any contraceptive method	0.152	0.011	3144	3371	1.725	0.073	0.130	0.174
Currently using any method	0.080	0.007	3144	3371	1.365	0.083	0.066	0.093
Currently using a modern method	0.040	0.004	3144	3371	1.041	0.091	0.033	0.047
Currently using pill	0.020	0.002	3144	3371	0.926	0.117	0.015	0.024
Currently using IUD	0.006	0.001	3144	3371	0.934	0.207	0.004	0.009
Currently using injectables	0.008	0.001	3144	3371	0.936	0.185	0.005	0.011
Currently using condom	0.003	0.001	3144	3371	0.774	0.268	0.001	0.004
Currently using female sterilization	0.003	0.001	3144	3371	0.836	0.275	0.001	0.005
Currently using periodic abstinence	0.008	0.002	3144	3371	0.969	0.193	0.005	0.011
Using public sector source	0.784	0.034	213	154	1.211	0.044	0.716	0.853
Want no more children	0.179	0.011	3144	3371	1.540	0.059	0.157	0.200
Want to delay at least two years	0.510	0.013	3144	3371	1.472	0.026	0.484	0.536
Ideal number of children	5.999	0.111	4195	4208	2.546	0.019	5.776	6.221
Mothers received tetanus injection	0.341	0.016	2344	2580	1.608	0.047	0.309	0.373
Mothers received medical care at birth	0.206	0.012	2344	2580	1.310	0.056	0.183	0.229
Had diarrhea in the last two weeks	0.236	0.013	2178	2424	1.496	0.056	0.209	0.262
Treated with ORS packets	0.328	0.030	499	571	1.492	0.090	0.269	0.387
Consulted medical personnel	0.284	0.032	499	571	1.649	0.112	0.221	0.347
Having vaccination card, seen	0.503	0.034	664	725	1.806	0.067	0.435	0.571
Received BCG vaccination	0.607	0.033	664	725	1.819	0.055	0.540	0.673
Received DPT vaccination (three doses)	0.488	0.031	664	725	1.635	0.063	0.427	0.549
Received polio vaccination (three doses)	0.477	0.027	664	725	1.436	0.056	0.423	0.530
Received measles vaccination	0.510	0.029	664	725	1.521	0.056	0.453	0.567
Fully immunized	0.414	0.024	664	725	1.305	0.058	0.366	0.462
Weight-for-height (below -2 SD)	0.164	0.010	2002	2269	1.236	0.059	0.145	0.184
Height-for-age (below -2 SD)	0.384	0.018	2002	2269	1.758	0.046	0.348	0.420
Weight-for-age (below -2 SD)	0.437	0.017	2002	2269	1.578	0.038	0.404	0.470
Total fertility rate (3 years)	6.099	0.221	NA	13964	1.902	0.036	5.656	6.541
Neonatal mortality rate (0-4 years)	24.824	3.152	3877	4252	1.202	0.127	18.521	31.127
Postneonatal mortality rate (0-4 years)	40.742	4.021	3893	4267	1.278	0.099	32.699	48.785
Infant mortality rate (0-4 years)	65.566	5.582	3893	4267	1.335	0.085	54.402	76.731
Child mortality rate (0-4 years)	75.552	5.927	4008	4401	1.350	0.078	63.697	87.406
Under-five mortality rate (0-4 years)	136.164	7.497	4024	4416	1.309	0.055	121.169	151.159
MEN								
No education	0.467	0.023	1114	1114	1.514	0.049	0.422	0.512
With secondary education or higher	0.193	0.013	1114	1114	1.076	0.066	0.168	0.219
Never married (in union)	0.350	0.017	1114	1114	1.157	0.047	0.317	0.383
Currently married (in union)	0.606	0.016	1114	1114	1.108	0.027	0.573	0.638
Knowing any contraceptive method	0.817	0.031	630	675	2.019	0.038	0.755	0.879
Knowing any modern method	0.781	0.035	630	675	2.143	0.045	0.710	0.851
Ever used any contraceptive method	0.269	0.022	630	675	1.255	0.082	0.225	0.314
Currently using any method	0.198	0.019	630	675	1.222	0.098	0.160	0.237
Currently using a modern method	0.072	0.009	630	675	0.847	0.121	0.054	0.089
Currently using pill	0.033	0.007	630	675	1.045	0.226	0.018	0.048
Currently using IUD	0.008	0.002	630	675	0.573	0.247	0.004	0.013
Currently using injectables	0.011	0.003	630	675	0.822	0.318	0.004	0.017
Currently using condom	0.013	0.003	630	675	0.755	0.260	0.006	0.020
Currently using female sterilization	0.005	0.002	630	675	0.827	0.448	0.001	0.010
Currently using periodic abstinence	0.119	0.016	630	675	1.261	0.137	0.086	0.151
Want no more children	0.136	0.014	630	675	1.023	0.103	0.108	0.164
Want to delay at least two years	0.523	0.027	630	675	1.332	0.051	0.470	0.576
Ideal number of children	6.861	0.164	1048	1046	1.348	0.024	6.533	7.188

NA = Not applicable

Table B.3 Sampling errors - Urban sample: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	0.299	0.012	2520	1648	1.261	0.038	0.276	0.322
With secondary education or higher	0.423	0.013	2520	1648	1.315	0.031	0.397	0.449
Never married (in union)	0.371	0.009	2520	1648	0.961	0.025	0.352	0.389
Currently married (in union)	0.466	0.010	2520	1648	1.029	0.022	0.445	0.486
Married before age 20	0.577	0.014	1850	1200	1.189	0.024	0.549	0.604
Had first sexual intercourse before 18	0.627	0.013	1850	1200	1.142	0.020	0.601	0.653
Children ever born	2.312	0.065	2520	1648	1.131	0.028	2.182	2.442
Children ever born to women over 40	5.378	0.178	514	337	1.255	0.033	5.022	5.734
Children surviving	1.969	0.053	2520	1648	1.057	0.027	1.864	2.074
Knowing any contraceptive method	0.919	0.013	1204	768	1.700	0.015	0.892	0.946
Knowing any modern method	0.916	0.013	1204	768	1.685	0.015	0.889	0.943
Ever used any contraceptive method	0.378	0.016	1204	768	1.156	0.043	0.345	0.410
Currently using any method	0.193	0.015	1204	768	1.274	0.075	0.164	0.222
Currently using a modern method	0.145	0.012	1204	768	1.221	0.085	0.120	0.170
Currently using pill	0.066	0.008	1204	768	1.108	0.120	0.050	0.082
Currently using IUD	0.028	0.006	1204	768	1.214	0.205	0.017	0.040
Currently using injectables	0.028	0.005	1204	768	1.079	0.183	0.018	0.038
Currently using condom	0.010	0.003	1204	768	0.925	0.262	0.005	0.016
Currently using female sterilization	0.011	0.003	1204	768	1.044	0.280	0.005	0.018
Currently using periodic abstinence	0.030	0.006	1204	768	1.207	0.198	0.018	0.042
Want no more children	0.263	0.013	1204	768	1.019	0.049	0.237	0.289
Want to delay at least two years	0.441	0.014	1204	768	0.980	0.032	0.413	0.469
Ideal number of children	5.107	0.072	2309	1520	1.406	0.014	4.963	5.250
Mothers received tetanus injection	0.713	0.020	868	542	1.206	0.028	0.673	0.753
Mothers received medical care at birth	0.634	0.021	868	542	1.182	0.034	0.591	0.677
Had diarrhea in the last two weeks	0.178	0.017	795	500	1.259	0.098	0.143	0.213
Treated with ORS packets	0.682	0.042	149	89	1.052	0.062	0.597	0.766
Consulted medical personnel	0.548	0.046	149	89	1.071	0.084	0.456	0.640
Having vaccination card, seen	0.801	0.023	258	161	0.904	0.029	0.754	0.847
Received BCG vaccination	0.947	0.014	258	161	1.010	0.015	0.918	0.976
Received DPT vaccination (three doses)	0.871	0.022	258	161	1.012	0.026	0.827	0.916
Received polio vaccination (three doses)	0.845	0.024	258	161	0.999	0.028	0.798	0.892
Received measles vaccination	0.870	0.017	258	161	0.784	0.019	0.836	0.903
Fully immunized	0.790	0.024	258	161	0.921	0.031	0.742	0.839
Weight-for-height (below -2 SD)	0.128	0.014	753	473	1.159	0.113	0.099	0.157
Height-for-age (below -2 SD)	0.287	0.016	753	473	0.940	0.055	0.255	0.319
Weight-for-age (below -2 SD)	0.310	0.022	753	473	1.297	0.072	0.265	0.354
Total fertility rate (3 years)	4.228	0.186	NA	4487	1.329	0.044	3.857	4.600
Neonatal mortality rate (0-9 years)	37.741	4.441	2872	1790	1.072	0.118	28.859	46.623
Postneonatal mortality rate (0-9 years)	42.093	4.496	2875	1792	1.088	0.107	33.101	51.085
Infant mortality rate (0-9 years)	79.834	5.769	2875	1792	0.993	0.072	68.296	91.372
Child mortality rate (0-9 years)	53.287	6.232	2898	1807	1.252	0.117	40.823	65.752
Under-five mortality rate (0-9 years)	128.867	9.161	2901	1809	1.212	0.071	110.544	147.190
MEN								
No education	0.116	0.014	562	356	1.047	0.122	0.087	0.144
With secondary education or higher	0.513	0.026	562	356	1.230	0.051	0.461	0.565
Never married (in union)	0.504	0.024	562	356	1.134	0.048	0.456	0.552
Currently married (in union)	0.464	0.025	562	356	1.187	0.054	0.414	0.514
Knowing any contraceptive method	0.965	0.014	264	165	1.262	0.015	0.936	0.993
Knowing any modern method	0.958	0.015	264	165	1.220	0.016	0.928	0.988
Ever used any contraceptive method	0.518	0.035	264	165	1.132	0.067	0.449	0.588
Currently using any method	0.380	0.022	264	165	0.749	0.059	0.336	0.425
Currently using a modern method	0.225	0.020	264	165	0.783	0.089	0.185	0.266
Currently using pill	0.077	0.015	264	165	0.938	0.200	0.046	0.108
Currently using IUD	0.035	0.008	264	165	0.723	0.235	0.018	0.051
Currently using injectables	0.039	0.013	264	165	1.080	0.329	0.014	0.065
Currently using condom	0.048	0.012	264	165	0.924	0.255	0.023	0.072
Currently using female sterilization	0.022	0.010	264	165	1.084	0.445	0.002	0.042
Currently using periodic abstinence	0.151	0.022	264	165	0.999	0.146	0.107	0.195
Want no more children	0.285	0.033	264	165	1.190	0.116	0.218	0.351
Want to delay at least two years	0.440	0.034	264	165	1.118	0.078	0.371	0.508
Ideal number of children	5.075	0.113	534	339	0.909	0.022	4.850	5.301

NA = Not applicable

Table B.4 Sampling errors - Asmara sample: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	0.229	0.011	1446	1059	1.036	0.050	0.206	0.252
With secondary education or higher	0.514	0.015	1446	1059	1.151	0.029	0.484	0.544
Never married (in union)	0.439	0.011	1446	1059	0.848	0.025	0.417	0.461
Currently married (in union)	0.426	0.010	1446	1059	0.796	0.024	0.405	0.447
Married before age 20	0.510	0.018	1021	748	1.126	0.035	0.475	0.546
Had first sexual intercourse before 18	0.621	0.015	1021	748	0.997	0.024	0.591	0.651
Children ever born	2.093	0.069	1446	1059	0.911	0.033	1.955	2.230
Children ever born to women over 40	5.259	0.233	293	215	1.207	0.044	4.794	5.725
Children surviving	1.837	0.059	1446	1059	0.883	0.032	1.718	1.956
Knowing any contraceptive method	0.966	0.009	616	451	1.197	0.009	0.948	0.983
Knowing any modern method	0.966	0.009	616	451	1.197	0.009	0.948	0.983
Ever used any contraceptive method	0.461	0.022	616	451	1.090	0.048	0.417	0.505
Currently using any method	0.255	0.022	616	451	1.234	0.085	0.212	0.298
Currently using a modern method	0.196	0.017	616	451	1.071	0.087	0.162	0.231
Currently using pill	0.078	0.010	616	451	0.900	0.125	0.058	0.097
Currently using IUD	0.042	0.009	616	451	1.134	0.218	0.024	0.061
Currently using injectables	0.044	0.008	616	451	0.991	0.187	0.027	0.060
Currently using condom	0.015	0.004	616	451	0.864	0.286	0.006	0.023
Currently using female sterilization	0.016	0.005	616	451	1.001	0.314	0.006	0.026
Currently using periodic abstinence	0.036	0.009	616	451	1.246	0.261	0.017	0.054
Want no more children	0.310	0.016	616	451	0.839	0.050	0.279	0.341
Want to delay at least two years	0.394	0.020	616	451	1.015	0.051	0.354	0.434
Ideal number of children	4.878	0.075	1381	1011	1.234	0.015	4.728	5.028
Mothers received tetanus injection	0.727	0.029	392	287	1.191	0.039	0.670	0.784
Mothers received medical care at birth	0.793	0.026	392	287	1.229	0.033	0.741	0.846
Had diarrhea in the last two weeks	0.159	0.021	364	267	1.093	0.132	0.117	0.201
Treated with ORS packets	0.741	0.059	58	43	1.022	0.080	0.623	0.860
Consulted medical personnel	0.517	0.074	58	43	1.107	0.143	0.370	0.665
Having vaccination card, seen	0.891	0.026	119	87	0.907	0.029	0.839	0.943
Received BCG vaccination	0.975	0.014	119	87	0.992	0.015	0.946	1.000
Received DPT vaccination (three doses)	0.916	0.021	119	87	0.836	0.023	0.873	0.959
Received polio vaccination (three doses)	0.916	0.023	119	87	0.919	0.026	0.869	0.963
Received measles vaccination	0.933	0.019	119	87	0.806	0.020	0.896	0.970
Fully immunized	0.874	0.026	119	87	0.853	0.030	0.822	0.926
Weight-for-height (below -2 SD)	0.096	0.019	343	251	1.214	0.198	0.058	0.134
Height-for-age (below -2 SD)	0.227	0.022	343	251	0.982	0.098	0.183	0.272
Weight-for-age (below -2 SD)	0.242	0.033	343	251	1.454	0.137	0.176	0.308
Total fertility rate (3 years)	3.716	0.186	NA	2856	0.996	0.050	3.345	4.087
Neonatal mortality rate (0-9 years)	33.123	6.170	1281	938	1.084	0.186	20.783	45.463
Postneonatal mortality rate (0-9 years)	29.929	6.356	1282	939	1.136	0.212	17.217	42.642
Infant mortality rate (0-9 years)	63.052	7.434	1282	939	0.960	0.118	48.184	77.920
Child mortality rate (0-9 years)	35.964	6.534	1289	944	1.198	0.182	22.896	49.032
Under-five mortality rate (0-9 years)	96.748	10.937	1290	944	1.187	0.113	74.874	118.622
MEN								
No education	0.066	0.015	316	229	1.103	0.233	0.036	0.097
With secondary education or higher	0.608	0.036	316	229	1.314	0.059	0.535	0.680
Never married (in union)	0.538	0.030	316	229	1.054	0.055	0.479	0.597
Currently married (in union)	0.427	0.031	316	229	1.106	0.072	0.366	0.489
Knowing any contraceptive method	0.978	0.016	135	98	1.285	0.017	0.945	1.000
Knowing any modern method	0.978	0.016	135	98	1.285	0.017	0.945	1.000
Ever used any contraceptive method	0.615	0.049	135	98	1.171	0.080	0.516	0.713
Currently using any method	0.496	0.030	135	98	0.701	0.061	0.436	0.557
Currently using a modern method	0.319	0.030	135	98	0.746	0.094	0.258	0.379
Currently using pill	0.096	0.024	135	98	0.959	0.254	0.047	0.145
Currently using IUD	0.052	0.012	135	98	0.610	0.225	0.028	0.075
Currently using injectables	0.067	0.022	135	98	1.008	0.326	0.023	0.110
Currently using condom	0.067	0.018	135	98	0.846	0.274	0.030	0.103
Currently using female sterilization	0.030	0.015	135	98	1.010	0.499	0.000	0.059
Currently using periodic abstinence	0.170	0.034	135	98	1.043	0.199	0.103	0.238
Want no more children	0.319	0.045	135	98	1.130	0.143	0.228	0.409
Want to delay at least two years	0.363	0.044	135	98	1.062	0.122	0.275	0.451
Ideal number of children	4.564	0.145	303	219	1.182	0.032	4.275	4.854

NA = Not applicable

Table B.5 Sampling errors - Other town sample: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	0.426	0.026	1074	589	1.700	0.060	0.374	0.477
With secondary education or higher	0.259	0.024	1074	589	1.811	0.094	0.210	0.307
Never married (in union)	0.247	0.015	1074	589	1.118	0.060	0.218	0.277
Currently married (in union)	0.537	0.021	1074	589	1.374	0.039	0.496	0.579
Married before age 20	0.687	0.014	829	452	0.894	0.021	0.658	0.716
Had first sexual intercourse before 18	0.637	0.023	829	452	1.378	0.036	0.591	0.683
Children ever born	2.706	0.133	1074	589	1.524	0.049	2.439	2.972
Children ever born to women over 40	5.586	0.258	221	122	1.258	0.046	5.069	6.102
Children surviving	2.205	0.101	1074	589	1.411	0.046	2.003	2.407
Knowing any contraceptive method	0.853	0.030	588	317	2.049	0.035	0.793	0.913
Knowing any modern method	0.845	0.030	588	317	2.021	0.036	0.784	0.905
Ever used any contraceptive method	0.259	0.022	588	317	1.233	0.086	0.214	0.303
Currently using any method	0.105	0.014	588	317	1.078	0.130	0.078	0.133
Currently using a modern method	0.072	0.014	588	317	1.332	0.197	0.044	0.101
Currently using pill	0.050	0.013	588	317	1.433	0.258	0.024	0.076
Currently using IUD	0.008	0.004	588	317	1.104	0.498	0.000	0.017
Currently using injectables	0.005	0.003	588	317	1.081	0.609	0.000	0.012
Currently using condom	0.004	0.003	588	317	1.055	0.687	0.000	0.009
Currently using female sterilization	0.005	0.003	588	317	1.004	0.607	0.000	0.010
Currently using periodic abstinence	0.022	0.006	588	317	0.959	0.264	0.010	0.034
Want no more children	0.195	0.022	588	317	1.317	0.110	0.152	0.238
Want to delay at least two years	0.508	0.018	588	317	0.881	0.036	0.471	0.544
Ideal number of children	5.560	0.163	928	509	1.819	0.029	5.234	5.886
Mothers received tetanus injection	0.697	0.028	476	255	1.225	0.040	0.642	0.752
Mothers received medical care at birth	0.454	0.032	476	255	1.293	0.071	0.390	0.519
Had diarrhea in the last two weeks	0.199	0.029	431	233	1.499	0.145	0.141	0.257
Treated with ORS packets	0.627	0.056	91	46	1.068	0.089	0.515	0.739
Consulted medical personnel	0.576	0.055	91	46	1.015	0.095	0.467	0.686
Having vaccination card, seen	0.694	0.042	139	74	1.048	0.060	0.611	0.778
Received BCG vaccination	0.915	0.027	139	74	1.110	0.029	0.861	0.968
Received DPT vaccination (three doses)	0.818	0.042	139	74	1.215	0.051	0.734	0.902
Received polio vaccination (three doses)	0.761	0.045	139	74	1.181	0.059	0.672	0.850
Received measles vaccination	0.795	0.029	139	74	0.830	0.036	0.737	0.853
Fully immunized	0.691	0.044	139	74	1.077	0.063	0.604	0.779
Weight-for-height (below -2 SD)	0.164	0.021	410	222	1.119	0.128	0.122	0.205
Height-for-age (below -2 SD)	0.354	0.023	410	222	0.960	0.065	0.308	0.401
Weight-for-age (below -2 SD)	0.386	0.031	410	222	1.275	0.080	0.324	0.448
Total fertility rate (3 years)	5.143	0.368	NA	1631	1.578	0.071	4.408	5.878
Neonatal mortality rate (0-9 years)	42.812	6.433	1591	853	1.104	0.150	29.946	55.679
Postneonatal mortality rate (0-9 years)	55.679	5.820	1593	854	0.993	0.105	44.040	67.318
Infant mortality rate (0-9 years)	98.491	8.001	1593	854	0.962	0.081	82.488	114.494
Child mortality rate (0-9 years)	74.372	10.272	1609	863	1.291	0.138	53.828	94.916
Under-five mortality rate (0-9 years)	165.538	12.638	1611	864	1.116	0.076	140.262	190.815
MEN								
No education	0.204	0.028	246	127	1.083	0.136	0.149	0.260
With secondary education or higher	0.344	0.031	246	127	1.029	0.091	0.281	0.406
Never married (in union)	0.443	0.040	246	127	1.272	0.091	0.362	0.524
Currently married (in union)	0.529	0.042	246	127	1.326	0.080	0.444	0.613
Knowing any contraceptive method	0.946	0.026	129	67	1.287	0.027	0.894	0.997
Knowing any modern method	0.930	0.028	129	67	1.234	0.030	0.875	0.986
Ever used any contraceptive method	0.379	0.048	129	67	1.123	0.127	0.282	0.475
Currently using any method	0.212	0.026	129	67	0.730	0.124	0.159	0.265
Currently using a modern method	0.090	0.020	129	67	0.793	0.223	0.050	0.130
Currently using pill	0.049	0.014	129	67	0.758	0.295	0.020	0.078
Currently using IUD	0.010	0.010	129	67	1.126	0.994	0.000	0.030
Currently using injectables	0.000	0.000	129	67	ND	ND	0.000	0.000
Currently using condom	0.020	0.012	129	67	0.951	0.590	0.000	0.043
Currently using female sterilization	0.011	0.011	129	67	1.186	0.993	0.000	0.033
Currently using periodic abstinence	0.122	0.022	129	67	0.747	0.177	0.079	0.166
Want no more children	0.235	0.047	129	67	1.264	0.201	0.140	0.330
Want to delay at least two years	0.551	0.049	129	67	1.120	0.089	0.453	0.650
Ideal number of children	6.007	0.179	231	120	0.740	0.030	5.648	6.365

NA = Not applicable
ND = Not defined (denominator = 0)

Table B.6 Sampling errors - Rural sample: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
No education	0.833	0.018	2534	3406	2.369	0.021	0.798	0.869
With secondary education or higher	0.033	0.007	2534	3406	2.067	0.222	0.018	0.048
Never married (in union)	0.117	0.009	2534	3406	1.458	0.080	0.098	0.136
Currently married (in union)	0.764	0.016	2534	3406	1.915	0.021	0.732	0.797
Married before age 20	0.787	0.014	2067	2726	1.604	0.018	0.758	0.816
Had first sexual intercourse before 18	0.672	0.017	2067	2726	1.677	0.026	0.638	0.707
Children ever born	3.343	0.066	2534	3406	1.109	0.020	3.211	3.475
Children ever born to women over 40	6.597	0.156	558	784	1.344	0.024	6.285	6.908
Children surviving	2.700	0.050	2534	3406	1.028	0.018	2.600	2.799
Knowing any contraceptive method	0.557	0.026	1940	2604	2.336	0.047	0.504	0.609
Knowing any modern method	0.533	0.025	1940	2604	2.186	0.046	0.484	0.583
Ever used any contraceptive method	0.085	0.013	1940	2604	2.096	0.156	0.059	0.112
Currently using any method	0.046	0.007	1940	2604	1.535	0.159	0.031	0.061
Currently using a modern method	0.009	0.003	1940	2604	1.276	0.307	0.003	0.014
Currently using pill	0.006	0.002	1940	2604	1.087	0.323	0.002	0.010
Currently using IUD	0.000	0.000	1940	2604	ND	ND	0.000	0.000
Currently using injectables	0.002	0.001	1940	2604	1.074	0.521	0.000	0.004
Currently using condom	0.000	0.000	1940	2604	ND	ND	0.000	0.000
Currently using female sterilization	0.000	0.000	1940	2604	ND	ND	0.000	0.000
Currently using periodic abstinence	0.001	0.001	1940	2604	0.989	0.585	0.000	0.003
Want no more children	0.154	0.013	1940	2604	1.561	0.083	0.128	0.179
Want to delay at least two years	0.530	0.016	1940	2604	1.448	0.031	0.498	0.563
Ideal number of children	6.503	0.159	1886	2688	2.378	0.024	6.185	6.821
Mothers received tetanus injection	0.242	0.019	1476	2038	1.675	0.079	0.204	0.280
Mothers received medical care at birth	0.093	0.011	1476	2038	1.437	0.124	0.070	0.115
Had diarrhea in the last two weeks	0.251	0.016	1383	1925	1.367	0.064	0.219	0.283
Treated with ORS packets	0.263	0.033	350	483	1.429	0.127	0.196	0.330
Consulted medical personnel	0.235	0.036	350	483	1.576	0.153	0.164	0.307
Having vaccination card, seen	0.418	0.041	406	564	1.684	0.098	0.336	0.500
Received BCG vaccination	0.510	0.040	406	564	1.637	0.079	0.429	0.590
Received DPT vaccination (three doses)	0.379	0.037	406	564	1.543	0.098	0.305	0.453
Received polio vaccination (three doses)	0.371	0.032	406	564	1.336	0.086	0.308	0.435
Received measles vaccination	0.407	0.035	406	564	1.439	0.086	0.338	0.477
Fully immunized	0.306	0.028	406	564	1.248	0.092	0.250	0.363
Weight-for-height (below -2 SD)	0.174	0.012	1249	1796	1.114	0.067	0.150	0.197
Height-for-age (below -2 SD)	0.409	0.022	1249	1796	1.638	0.053	0.366	0.453
Weight-for-age (below -2 SD)	0.471	0.020	1249	1796	1.442	0.042	0.431	0.511
Total fertility rate (3 years)	6.991	0.259	NA	9477	1.536	0.037	6.473	7.509
Neonatal mortality rate (0-9 years)	34.628	3.998	4716	6406	1.369	0.115	26.632	42.624
Postneonatal mortality rate (0-9 years)	39.757	3.434	4723	6418	1.223	0.086	32.890	46.625
Infant mortality rate (0-9 years)	74.385	4.939	4723	6418	1.198	0.066	64.507	84.264
Child mortality rate (0-9 years)	92.425	5.939	4787	6503	1.186	0.064	80.547	104.302
Under-five mortality rate (0-9 years)	159.935	7.498	4794	6515	1.261	0.047	144.939	174.931
MEN								
No education	0.631	0.031	552	758	1.525	0.050	0.569	0.694
With secondary education or higher	0.043	0.013	552	758	1.479	0.298	0.017	0.068
Never married (in union)	0.277	0.021	552	758	1.097	0.075	0.236	0.319
Currently married (in union)	0.672	0.020	552	758	1.017	0.030	0.632	0.713
Knowing any contraceptive method	0.770	0.041	366	510	1.850	0.053	0.688	0.851
Knowing any modern method	0.723	0.046	366	510	1.980	0.064	0.631	0.816
Ever used any contraceptive method	0.189	0.026	366	510	1.275	0.138	0.137	0.241
Currently using any method	0.140	0.024	366	510	1.327	0.172	0.091	0.188
Currently using a modern method	0.022	0.009	366	510	1.148	0.400	0.004	0.040
Currently using pill	0.019	0.008	366	510	1.193	0.452	0.002	0.036
Currently using IUD	0.000	0.000	366	510	ND	ND	0.000	0.000
Currently using injectables	0.001	0.001	366	510	0.647	1.005	0.000	0.003
Currently using condom	0.002	0.002	366	510	0.891	0.995	0.000	0.007
Currently using female sterilization	0.000	0.000	366	510	ND	ND	0.000	0.000
Currently using periodic abstinence	0.109	0.020	366	510	1.241	0.186	0.068	0.149
Want no more children	0.088	0.014	366	510	0.932	0.158	0.060	0.115
Want to delay at least two years	0.550	0.033	366	510	1.268	0.060	0.484	0.616
Ideal number of children	7.718	0.231	514	707	1.280	0.030	7.256	8.180

NA = Not applicable
ND = Not defined (denominator = 0)

Table B.7 Sampling errors - Southern Red Sea Zone: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
No education	0.714	0.083	273	139	3.037	0.116	0.548	0.881
With secondary education or higher	0.169	0.063	273	139	2.785	0.374	0.042	0.296
Never married (in union)	0.209	0.043	273	139	1.729	0.204	0.124	0.294
Currently married (in union)	0.623	0.053	273	139	1.815	0.086	0.516	0.730
Married before age 20	0.631	0.036	220	112	1.109	0.057	0.559	0.703
Had first sexual intercourse before 18	0.569	0.045	220	112	1.353	0.080	0.479	0.660
Children ever born	2.871	0.380	273	139	2.120	0.132	2.112	3.631
Children ever born to women over 40	6.184	0.476	45	23	1.156	0.077	5.233	7.136
Children surviving	2.124	0.254	273	139	1.902	0.119	1.617	2.631
Knowing any contraceptive method	0.523	0.068	168	87	1.766	0.131	0.386	0.659
Knowing any modern method	0.523	0.068	168	87	1.766	0.131	0.386	0.659
Ever used any contraceptive method	0.102	0.042	168	87	1.812	0.416	0.017	0.187
Currently using any method	0.062	0.011	168	87	0.603	0.181	0.040	0.085
Currently using a modern method	0.051	0.011	168	87	0.631	0.211	0.029	0.072
Currently using pill	0.040	0.012	168	87	0.776	0.296	0.016	0.063
Currently using IUD	0.006	0.006	168	87	0.980	1.006	0.000	0.017
Currently using injectables	0.000	0.000	168	87	ND	ND	0.000	0.000
Currently using condom	0.006	0.005	168	87	0.876	0.899	0.000	0.016
Currently using female sterilization	0.000	0.000	168	87	ND	ND	0.000	0.000
Currently using periodic abstinence	0.011	0.010	168	87	1.243	0.899	0.000	0.032
Want no more children	0.129	0.031	168	87	1.206	0.243	0.066	0.191
Want to delay at least two years	0.512	0.043	168	87	1.103	0.083	0.426	0.597
Ideal number of children	5.644	0.523	163	82	1.706	0.093	4.598	6.691
Mothers received tetanus injection	0.229	0.079	132	68	1.837	0.345	0.071	0.387
Mothers received medical care at birth	0.228	0.074	132	68	1.802	0.326	0.079	0.377
Had diarrhea in the last two weeks	0.391	0.080	113	59	1.749	0.206	0.230	0.552
Treated with ORS packets	0.407	0.099	44	23	1.391	0.243	0.209	0.605
Consulted medical personnel	0.249	0.125	44	23	1.789	0.502	0.000	0.498
Having vaccination card, seen	0.179	0.086	27	14	1.164	0.479	0.007	0.351
Received BCG vaccination	0.217	0.108	27	14	1.362	0.499	0.000	0.433
Received DPT vaccination (three doses)	0.217	0.108	27	14	1.362	0.499	0.000	0.433
Received polio vaccination (three doses)	0.217	0.108	27	14	1.362	0.499	0.000	0.433
Received measles vaccination	0.217	0.108	27	14	1.362	0.499	0.000	0.433
Fully immunized	0.217	0.108	27	14	1.362	0.499	0.000	0.433
Weight-for-height (below -2 SD)	0.230	0.041	69	36	0.777	0.176	0.149	0.311
Height-for-age (below -2 SD)	0.352	0.071	69	36	1.234	0.202	0.210	0.493
Weight-for-age (below -2 SD)	0.408	0.047	69	36	0.830	0.115	0.314	0.502

ND = Not defined (denominator = 0)

Table B.8 Sampling errors - Northern Red Sea Zone: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
No education	0.846	0.041	803	556	3.180	0.048	0.765	0.927
With secondary education or higher	0.047	0.014	803	556	1.918	0.307	0.018	0.075
Never married (in union)	0.102	0.017	803	556	1.617	0.169	0.067	0.137
Currently married (in union)	0.805	0.035	803	556	2.501	0.043	0.735	0.875
Married before age 20	0.685	0.031	689	475	1.761	0.046	0.623	0.747
Had first sexual intercourse before 18	0.595	0.044	689	475	2.350	0.074	0.507	0.683
Children ever born	3.337	0.164	803	556	1.637	0.049	3.010	3.664
Children ever born to women over 40	6.017	0.327	195	139	1.733	0.054	5.363	6.672
Children surviving	2.593	0.119	803	556	1.529	0.046	2.354	2.831
Knowing any contraceptive method	0.439	0.057	629	448	2.871	0.130	0.325	0.553
Knowing any modern method	0.408	0.051	629	448	2.604	0.125	0.306	0.510
Ever used any contraceptive method	0.075	0.014	629	448	1.296	0.181	0.048	0.103
Currently using any method	0.037	0.009	629	448	1.233	0.250	0.019	0.056
Currently using a modern method	0.014	0.005	629	448	1.147	0.385	0.003	0.025
Currently using pill	0.012	0.006	629	448	1.448	0.518	0.000	0.025
Currently using IUD	0.000	0.000	629	448	ND	ND	0.000	0.000
Currently using injectables	0.002	0.002	629	448	1.028	1.015	0.000	0.005
Currently using condom	0.000	0.000	629	448	ND	ND	0.000	0.000
Currently using female sterilization	0.000	0.000	629	448	ND	ND	0.000	0.000
Currently using periodic abstinence	0.003	0.002	629	448	1.052	0.734	0.000	0.008
Want no more children	0.109	0.015	629	448	1.223	0.140	0.078	0.139
Want to delay at least two years	0.522	0.041	629	448	2.072	0.079	0.440	0.605
Ideal number of children	6.982	0.428	547	380	3.153	0.061	6.126	7.839
Mothers received tetanus injection	0.252	0.031	474	341	1.525	0.124	0.189	0.315
Mothers received medical care at birth	0.136	0.031	474	341	1.932	0.228	0.074	0.198
Had diarrhea in the last two weeks	0.234	0.027	441	317	1.374	0.116	0.179	0.288
Treated with ORS packets	0.406	0.069	116	74	1.438	0.170	0.268	0.544
Consulted medical personnel	0.408	0.075	116	74	1.556	0.184	0.258	0.558
Having vaccination card, seen	0.158	0.044	143	103	1.458	0.276	0.070	0.245
Received BCG vaccination	0.320	0.057	143	103	1.500	0.179	0.205	0.435
Received DPT vaccination (three doses)	0.237	0.042	143	103	1.202	0.177	0.154	0.321
Received polio vaccination (three doses)	0.242	0.032	143	103	0.899	0.131	0.178	0.305
Received measles vaccination	0.278	0.041	143	103	1.115	0.147	0.196	0.360
Fully immunized	0.202	0.029	143	103	0.893	0.146	0.143	0.260
Weight-for-height (below -2 SD)	0.222	0.025	395	281	1.179	0.114	0.172	0.273
Height-for-age (below -2 SD)	0.472	0.032	395	281	1.303	0.067	0.408	0.535
Weight-for-age (below -2 SD)	0.547	0.025	395	281	0.991	0.045	0.498	0.597

ND = Not defined (denominator = 0)

Table B.9 Sampling errors - Anseba Zone: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
No education	0.732	0.042	559	642	2.237	0.057	0.648	0.815
With secondary education or higher	0.086	0.025	559	642	2.099	0.289	0.036	0.136
Never married (in union)	0.181	0.022	559	642	1.340	0.121	0.138	0.225
Currently married (in union)	0.686	0.059	559	642	2.987	0.086	0.569	0.803
Married before age 20	0.774	0.020	434	495	0.976	0.025	0.735	0.813
Had first sexual intercourse before 18	0.632	0.022	434	495	0.928	0.034	0.589	0.675
Children ever born	3.111	0.134	559	642	1.053	0.043	2.842	3.380
Children ever born to women over 40	6.263	0.378	121	140	1.541	0.060	5.506	7.020
Children surviving	2.599	0.126	559	642	1.160	0.048	2.347	2.851
Knowing any contraceptive method	0.409	0.065	371	441	2.526	0.158	0.280	0.538
Knowing any modern method	0.403	0.062	371	441	2.443	0.155	0.279	0.528
Ever used any contraceptive method	0.060	0.019	371	441	1.557	0.320	0.022	0.099
Currently using any method	0.019	0.008	371	441	1.141	0.432	0.003	0.035
Currently using a modern method	0.012	0.007	371	441	1.136	0.526	0.000	0.026
Currently using pill	0.007	0.004	371	441	0.985	0.611	0.000	0.016
Currently using IUD	0.002	0.002	371	441	0.770	1.028	0.000	0.005
Currently using injectables	0.002	0.002	371	441	0.761	1.016	0.000	0.005
Currently using condom	0.000	0.000	371	441	ND	ND	0.000	0.000
Currently using female sterilization	0.002	0.002	371	441	0.951	0.999	0.000	0.007
Currently using periodic abstinence	0.006	0.003	371	441	0.768	0.511	0.000	0.012
Want no more children	0.111	0.033	371	441	2.035	0.300	0.044	0.177
Want to delay at least two years	0.397	0.030	371	441	1.185	0.076	0.336	0.457
Ideal number of children	7.748	0.413	441	499	2.363	0.053	6.922	8.574
Mothers received tetanus injection	0.275	0.071	278	330	2.507	0.259	0.133	0.418
Mothers received medical care at birth	0.141	0.032	278	330	1.429	0.224	0.078	0.205
Had diarrhea in the last two weeks	0.150	0.010	264	314	0.480	0.069	0.130	0.171
Treated with ORS packets	0.268	0.083	40	47	1.200	0.310	0.102	0.434
Consulted medical personnel	0.188	0.096	40	47	1.580	0.512	0.000	0.381
Having vaccination card, seen	0.515	0.117	70	82	1.956	0.227	0.281	0.749
Received BCG vaccination	0.595	0.116	70	82	1.978	0.195	0.364	0.827
Received DPT vaccination (three doses)	0.364	0.102	70	82	1.777	0.280	0.160	0.568
Received polio vaccination (three doses)	0.253	0.059	70	82	1.133	0.232	0.136	0.370
Received measles vaccination	0.535	0.106	70	82	1.772	0.198	0.323	0.746
Fully immunized	0.245	0.057	70	82	1.107	0.231	0.132	0.358
Weight-for-height (below -2 SD)	0.150	0.028	252	300	1.261	0.186	0.094	0.205
Height-for-age (below -2 SD)	0.454	0.043	252	300	1.442	0.096	0.367	0.541
Weight-for-age (below -2 SD)	0.470	0.016	252	300	0.526	0.034	0.438	0.502

ND = Not defined (denominator = 0)

Table B.10 Sampling errors - Gash-Barka Zone: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
No education	0.885	0.023	834	957	2.080	0.026	0.839	0.931
With secondary education or higher	0.025	0.008	834	957	1.467	0.320	0.009	0.040
Never married (in union)	0.096	0.016	834	957	1.533	0.163	0.064	0.127
Currently married (in union)	0.768	0.028	834	957	1.919	0.037	0.712	0.824
Married before age 20	0.797	0.022	689	789	1.454	0.028	0.752	0.842
Had first sexual intercourse before 18	0.696	0.029	689	789	1.667	0.042	0.638	0.755
Children ever born	3.048	0.119	834	957	1.221	0.039	2.809	3.287
Children ever born to women over 40	6.093	0.393	150	178	1.808	0.065	5.306	6.879
Children surviving	2.354	0.091	834	957	1.174	0.038	2.173	2.535
Knowing any contraceptive method	0.354	0.052	622	735	2.706	0.147	0.250	0.458
Knowing any modern method	0.337	0.051	622	735	2.669	0.150	0.235	0.438
Ever used any contraceptive method	0.050	0.012	622	735	1.396	0.245	0.025	0.074
Currently using any method	0.018	0.006	622	735	1.088	0.322	0.006	0.030
Currently using a modern method	0.007	0.004	622	735	1.223	0.574	0.000	0.016
Currently using pill	0.004	0.002	622	735	0.828	0.504	0.000	0.009
Currently using IUD	0.001	0.001	622	735	0.579	1.005	0.000	0.002
Currently using injectables	0.002	0.002	622	735	1.055	0.978	0.000	0.006
Currently using condom	0.000	0.000	622	735	ND	ND	0.000	0.000
Currently using female sterilization	0.001	0.001	622	735	0.579	1.005	0.000	0.002
Currently using periodic abstinence	0.005	0.003	622	735	0.950	0.516	0.000	0.011
Want no more children	0.188	0.022	622	735	1.411	0.118	0.144	0.233
Want to delay at least two years	0.403	0.027	622	735	1.393	0.068	0.348	0.457
Ideal number of children	5.595	0.271	660	756	2.541	0.048	5.054	6.136
Mothers received tetanus injection	0.222	0.031	418	499	1.431	0.142	0.159	0.285
Mothers received medical care at birth	0.111	0.028	418	499	1.804	0.253	0.055	0.168
Had diarrhea in the last two weeks	0.297	0.025	384	462	1.064	0.084	0.247	0.347
Treated with ORS packets	0.267	0.068	112	137	1.682	0.256	0.131	0.404
Consulted medical personnel	0.258	0.055	112	137	1.365	0.212	0.148	0.367
Having vaccination card, seen	0.225	0.057	110	137	1.481	0.254	0.111	0.339
Received BCG vaccination	0.301	0.073	110	137	1.728	0.244	0.154	0.448
Received DPT vaccination (three doses)	0.153	0.063	110	137	1.896	0.410	0.027	0.279
Received polio vaccination (three doses)	0.163	0.063	110	137	1.852	0.386	0.037	0.289
Received measles vaccination	0.197	0.048	110	137	1.301	0.243	0.101	0.292
Fully immunized	0.103	0.042	110	137	1.495	0.406	0.019	0.186
Weight-for-height (below -2 SD)	0.235	0.024	351	425	1.083	0.104	0.186	0.283
Height-for-age (below -2 SD)	0.410	0.040	351	425	1.524	0.098	0.330	0.490
Weight-for-age (below -2 SD)	0.534	0.034	351	425	1.325	0.063	0.467	0.602

ND = Not defined (denominator = 0)

Table B.11 Sampling errors - Southern Zone: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
No education	0.762	0.032	852	1392	2.179	0.042	0.698	0.825
With secondary education or higher	0.056	0.010	852	1392	1.263	0.178	0.036	0.076
Never married (in union)	0.122	0.017	852	1392	1.539	0.142	0.087	0.156
Currently married (in union)	0.737	0.015	852	1392	0.966	0.020	0.708	0.766
Married before age 20	0.809	0.022	648	1074	1.449	0.028	0.765	0.854
Had first sexual intercourse before 18	0.690	0.029	648	1074	1.583	0.042	0.633	0.748
Children ever born	3.488	0.104	852	1392	0.974	0.030	3.280	3.696
Children ever born to women over 40	6.797	0.171	211	365	0.847	0.025	6.455	7.139
Children surviving	2.865	0.074	852	1392	0.870	0.026	2.716	3.014
Knowing any contraceptive method	0.859	0.040	566	1025	2.759	0.047	0.779	0.940
Knowing any modern method	0.826	0.029	566	1025	1.824	0.035	0.767	0.884
Ever used any contraceptive method	0.173	0.030	566	1025	1.885	0.173	0.113	0.233
Currently using any method	0.091	0.017	566	1025	1.399	0.186	0.057	0.125
Currently using a modern method	0.014	0.004	566	1025	0.814	0.285	0.006	0.022
Currently using pill	0.010	0.004	566	1025	0.882	0.368	0.003	0.017
Currently using IUD	0.001	0.001	566	1025	0.603	0.784	0.000	0.003
Currently using injectables	0.001	0.001	566	1025	0.701	0.805	0.000	0.003
Currently using condom	0.001	0.001	566	1025	0.651	0.994	0.000	0.002
Currently using female sterilization	0.001	0.001	566	1025	0.593	0.771	0.000	0.003
Currently using periodic abstinence	0.001	0.000	566	1025	0.407	0.000	0.000	0.001
Want no more children	0.171	0.021	566	1025	1.302	0.121	0.130	0.212
Want to delay at least two years	0.677	0.030	566	1025	1.513	0.044	0.617	0.736
Ideal number of children	6.198	0.126	740	1196	1.493	0.020	5.946	6.450
Mothers received tetanus injection	0.290	0.028	490	882	1.436	0.097	0.234	0.347
Mothers received medical care at birth	0.120	0.015	490	882	0.980	0.127	0.089	0.150
Had diarrhea in the last two weeks	0.261	0.032	458	841	1.597	0.121	0.198	0.325
Treated with ORS packets	0.253	0.048	103	220	1.255	0.188	0.158	0.348
Consulted medical personnel	0.225	0.059	103	220	1.626	0.263	0.107	0.343
Having vaccination card, seen	0.588	0.056	145	248	1.387	0.095	0.476	0.699
Received BCG vaccination	0.710	0.046	145	248	1.255	0.065	0.617	0.802
Received DPT vaccination (three doses)	0.597	0.064	145	248	1.609	0.108	0.468	0.726
Received polio vaccination (three doses)	0.593	0.060	145	248	1.485	0.100	0.474	0.712
Received measles vaccination	0.559	0.049	145	248	1.214	0.088	0.460	0.657
Fully immunized	0.490	0.053	145	248	1.308	0.109	0.383	0.597
Weight-for-height (below -2 SD)	0.151	0.018	446	820	1.120	0.117	0.115	0.186
Height-for-age (below -2 SD)	0.347	0.036	446	820	1.729	0.104	0.275	0.419
Weight-for-age (below -2 SD)	0.397	0.036	446	820	1.595	0.090	0.325	0.469

Table B.12 Sampling errors - Central Zone: Eritrea 1995

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
No education	0.282	0.013	1733	1368	1.169	0.045	0.257	0.307
With secondary education or higher	0.441	0.014	1733	1368	1.205	0.033	0.412	0.470
Never married (in union)	0.399	0.011	1733	1368	0.923	0.027	0.377	0.421
Currently married (in union)	0.465	0.011	1733	1368	0.895	0.023	0.444	0.487
Married before age 20	0.570	0.016	1237	980	1.159	0.029	0.538	0.603
Had first sexual intercourse before 18	0.648	0.012	1237	980	0.911	0.019	0.624	0.673
Children ever born	2.319	0.070	1733	1368	0.982	0.030	2.179	2.459
Children ever born to women over 40	5.666	0.217	350	276	1.241	0.038	5.232	6.101
Children surviving	2.042	0.062	1733	1368	0.975	0.030	1.918	2.166
Knowing any contraceptive method	0.930	0.013	788	636	1.466	0.014	0.903	0.957
Knowing any modern method	0.930	0.013	788	636	1.466	0.014	0.903	0.957
Ever used any contraceptive method	0.359	0.017	788	636	0.990	0.047	0.325	0.393
Currently using any method	0.206	0.016	788	636	1.127	0.079	0.174	0.239
Currently using a modern method	0.154	0.014	788	636	1.115	0.093	0.126	0.183
Currently using pill	0.064	0.008	788	636	0.896	0.122	0.048	0.079
Currently using IUD	0.030	0.007	788	636	1.105	0.224	0.016	0.043
Currently using injectables	0.036	0.007	788	636	1.033	0.190	0.022	0.050
Currently using condom	0.012	0.003	788	636	0.863	0.278	0.005	0.019
Currently using female sterilization	0.012	0.004	788	636	0.962	0.318	0.004	0.019
Currently using periodic abstinence	0.027	0.007	788	636	1.153	0.247	0.014	0.040
Want no more children	0.282	0.019	788	636	1.185	0.067	0.244	0.320
Want to delay at least two years	0.435	0.020	788	636	1.119	0.045	0.396	0.475
Ideal number of children	5.109	0.062	1644	1294	1.103	0.012	4.984	5.234
Mothers received tetanus injection	0.696	0.036	552	459	1.826	0.052	0.623	0.768
Mothers received medical care at birth	0.571	0.036	552	459	1.596	0.063	0.499	0.642
Had diarrhea in the last two weeks	0.163	0.016	518	432	0.997	0.097	0.131	0.195
Treated with ORS packets	0.615	0.052	84	71	0.976	0.084	0.511	0.718
Consulted medical personnel	0.465	0.062	84	71	1.139	0.133	0.341	0.588
Having vaccination card, seen	0.902	0.020	169	141	0.911	0.023	0.861	0.943
Received BCG vaccination	0.977	0.012	169	141	1.053	0.012	0.953	1.000
Received DPT vaccination (three doses)	0.902	0.023	169	141	1.018	0.025	0.857	0.948
Received polio vaccination (three doses)	0.902	0.023	169	141	1.050	0.026	0.855	0.949
Received measles vaccination	0.913	0.025	169	141	1.174	0.027	0.863	0.962
Fully immunized	0.853	0.031	169	141	1.182	0.037	0.791	0.916
Weight-for-height (below -2 SD)	0.083	0.015	489	408	1.229	0.177	0.054	0.112
Height-for-age (below -2 SD)	0.322	0.032	489	408	1.555	0.099	0.258	0.385
Weight-for-age (below -2 SD)	0.320	0.032	489	408	1.564	0.100	0.256	0.384

APPENDIX C

DATA QUALITY TABLES

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Eritrea 1995

	Males		Females			Males		Females	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
<1	461	4.2	414	3.3	37	46	0.4	95	0.8
1	368	3.4	330	2.7	38	76	0.7	118	1.0
2	415	3.8	417	3.4	39	32	0.3	43	0.3
3	393	3.6	351	2.8	40	181	1.7	331	2.7
4	351	3.2	347	2.8	41	43	0.4	34	0.3
5	372	3.4	356	2.9	42	83	0.8	73	0.6
6	370	3.4	366	3.0	43	83	0.8	114	0.9
7	385	3.5	425	3.4	44	45	0.4	45	0.4
8	396	3.6	442	3.6	45	197	1.8	242	2.0
9	316	2.9	305	2.5	46	54	0.5	51	0.4
10	443	4.1	468	3.8	47	55	0.5	66	0.5
11	248	2.3	270	2.2	48	72	0.7	91	0.7
12	414	3.8	362	2.9	49	19	0.2	52	0.4
13	379	3.5	359	2.9	50	166	1.5	151	1.2
14	335	3.1	269	2.2	51	26	0.2	33	0.3
15	254	2.3	290	2.3	52	41	0.4	115	0.9
16	243	2.2	236	1.9	53	44	0.4	104	0.8
17	195	1.8	195	1.6	54	26	0.2	57	0.5
18	220	2.0	268	2.2	55	115	1.1	167	1.3
19	92	0.8	148	1.2	56	58	0.5	76	0.6
20	186	1.7	338	2.7	57	38	0.4	53	0.4
21	100	0.9	96	0.8	58	72	0.7	50	0.4
22	92	0.8	175	1.4	59	34	0.3	19	0.2
23	65	0.6	140	1.1	60	170	1.6	194	1.6
24	77	0.7	85	0.7	61	25	0.2	26	0.2
25	191	1.8	293	2.4	62	65	0.6	49	0.4
26	61	0.6	92	0.7	63	68	0.6	41	0.3
27	93	0.9	125	1.0	64	39	0.4	21	0.2
28	97	0.9	148	1.2	65	134	1.2	149	1.2
29	53	0.5	68	0.6	66	30	0.3	18	0.1
30	170	1.6	376	3.0	67	37	0.3	40	0.3
31	31	0.3	28	0.2	68	29	0.3	46	0.4
32	55	0.5	108	0.9	69	13	0.1	10	0.1
33	42	0.4	88	0.7	70+	509	4.7	473	3.8
34	33	0.3	43	0.3	Don't know/				
35	132	1.2	252	2.0	Missing	3	0.0	3	0.0
36	52	0.5	71	0.6					
					Total	10,903	100.0	12,391	100.0

Note: The de facto population includes all residents and nonresidents who slept in the household the night before the interview.

Table C.2 Age distribution of eligible and interviewed women and men

Percent distribution of the de facto household population of women age 10-54 and men age 10-64 and of interviewed women age 15-49 and men age 15-59, and the percentage of eligible women and men who were interviewed (weighted) by five-year age groups, Eritrea 1995

Age	Household population		Women/men interviewed		Percent interviewed (weighted)
	Number	Percent	Number	Percent	
			WOMEN		
10-14	1,728	-	-	-	-
15-19	1,137	22.7	1,083	22.4	95.2
20-24	834	16.6	805	16.6	96.6
25-29	726	14.5	699	14.4	96.3
30-34	644	12.8	619	12.8	96.2
35-39	579	11.5	565	11.7	97.6
40-44	598	11.9	582	12.0	97.3
45-49	502	10.0	490	10.1	97.5
50-54	459	-	-	-	-
15-49	5,019	-	4,843	-	96.5
			MEN		
10-14	621	-	-	-	-
15-19	272	22.6	226	21.1	83.1
20-24	152	12.6	136	12.7	89.7
25-29	147	12.2	126	11.8	85.7
30-34	107	8.9	96	9.0	89.8
35-39	131	10.8	122	11.3	93.1
40-44	123	10.2	111	10.4	90.3
45-49	117	9.7	109	10.2	93.4
50-54	75	6.2	67	6.3	90.2
55-59	83	6.9	78	7.3	93.5
60-64	127	-	-	-	0.0
15-59	1,206	-	1,072	-	88.8

Note: The de facto population includes all residents and nonresidents who slept in the household the night before interview.

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Eritrea 1995

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Births in last 15 years		
Month only		3.1	11,266
Month and year		--	11,266
Age at death	Deaths to births in last 15 years	0.4	1,705
Age/date at first union[1]	Ever-married women	22.4	4,045
Respondent's education	All women	0.0	5,054
Child's size at birth	Births in last 35 months	14.7	419
Anthropometry[2]	Living children age 0-35 months		
Height missing		2.2	2,424
Weight missing		1.8	2,424
Height or weight missing		2.7	2,424
Diarrhea in last 2 weeks	Living children age 0-35 months	0.5	2,424

-- Less than 0.05 percent
[1] Both year and age missing
[2] Child not measured

Table C.4 Births by calendar years

Distribution of births by Western calendar years for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Eritrea 1995

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
Year	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
94	740	47	786	98.9	93.3	98.6	98.4	128.3	99.9	NA	NA	NA	367	26	393	373	21	393
93	824	72	896	98.3	92.4	97.8	104.6	124.5	106.1	112.7	135.3	114.2	421	40	461	402	32	435
92	722	60	782	98.0	91.1	97.5	104.4	186.5	109.0	96.4	57.8	91.7	369	39	408	353	21	374
91	674	134	808	96.3	92.8	95.7	102.6	107.7	103.5	94.1	143.3	99.8	341	70	411	333	65	397
90	710	128	838	97.4	93.7	96.8	99.1	145.6	105.0	105.7	87.8	102.5	354	76	429	357	52	409
89	669	157	826	95.5	92.1	94.8	103.8	140.6	109.9	97.5	115.2	100.4	341	92	433	328	65	394
88	663	145	808	97.2	93.7	96.6	91.8	100.6	93.3	98.3	86.3	95.9	317	73	390	346	72	418
87	680	178	858	96.9	94.1	96.3	99.5	101.0	99.8	116.6	143.6	121.3	339	90	429	341	89	429
86	503	104	607	98.0	90.6	96.7	99.1	105.6	100.2	72.6	62.0	70.5	250	53	304	253	50	303
85	707	156	863	97.1	94.9	96.7	93.2	142.7	100.6	NA	NA	NA	341	92	433	366	64	430
90-94	3,669	441	4,110	97.8	92.8	97.3	101.9	131.7	104.7	NA	NA	NA	1,852	251	2,102	1,818	190	2,008
85-89	3,222	740	3,962	96.9	93.3	96.2	97.3	117.0	100.7	NA	NA	NA	1,588	399	1,988	1,633	341	1,974
80-84	2,165	596	2,761	97.8	92.7	96.7	101.7	115.9	104.6	NA	NA	NA	1,092	320	1,412	1,073	276	1,349
75-79	1,428	451	1,879	97.7	92.5	96.5	99.3	122.6	104.4	NA	NA	NA	711	248	960	717	202	919
< 75	1,114	493	1,608	98.6	94.6	97.4	102.0	134.5	111.0	NA	NA	NA	563	283	846	552	210	762
All	11,598	2,721	14,319	97.6	93.2	96.8	100.2	123.0	104.2	NA	NA	NA	5,806	1,501	7,307	5,793	1,220	7,013

NA = Not applicable

[1] Both year and month of birth given

[2] $(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3] $[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods preceding the survey (unweighted), Eritrea 1995

Age at death (in days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	19	32	15	20	87
1	14	34	19	21	89
2	13	12	10	10	45
3	16	33	11	11	71
4	5	5	2	5	18
5	3	3	2	6	14
6	1	2	0	1	4
7	6	16	4	7	33
8	4	1	4	3	12
9	0	1	1	0	2
10	0	2	1	1	5
12	0	0	1	3	5
13	0	0	0	2	2
14	5	9	4	0	19
15	4	8	18	4	35
16	1	2	3	1	7
17	3	0	0	0	3
18	0	6	3	3	12
19	0	0	2	0	2
20	3	0	3	0	6
21	3	5	0	4	12
22	0	2	0	0	2
24	0	2	3	2	7
25	0	3	0	0	3
27	0	3	0	0	3
28	0	0	0	2	2
29	0	0	2	0	2
30	0	0	1	0	1
Total 0-30[1]	101	181	111	106	499
Percent early neonatal[2]	71.1	66.8	54.1	69.1	65.3

[1] Includes cases for which age at death (in exact days) is not known
[2] (0-6 days/0-30 days) * 100

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods preceding the survey (unweighted), Eritrea 1995

Age at death (in months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1[a]	101	181	111	106	499
1	17	23	24	14	77
2	20	18	17	8	63
3	29	28	26	8	92
4	21	6	6	5	37
5	8	12	4	6	30
6	13	25	22	14	74
7	12	7	20	6	45
8	17	14	6	3	41
9	12	18	4	4	37
10	9	5	4	4	22
11	9	2	8	2	22
12	47	78	44	27	196
13	1	6	3	0	9
14	4	6	3	3	16
15	2	1	5	2	11
16	3	1	4	1	9
17	2	1	0	0	3
18	18	22	20	6	67
19	5	5	4	0	13
20	2	2	0	3	7
21	1	0	0	1	2
23	0	1	1	1	3
24+	0	0	1	0	1
1 year	3	3	1	1	8
Total 0-11[b]	268	337	252	181	1,038
Percent neonatal[c]	37.7	53.8	43.9	58.5	48.0

[a] Includes deaths under 1 month reported in days
[b] Includes cases for which age at death (in exact months) is not known
[c] (under 1 month/under 1 year) * 100

APPENDIX D

PERSONS INVOLVED IN THE 1995 ERITREA DEMOGRPHIC AND HEALTH SURVEY

APPENDIX D

PERSONS INVOLVED IN THE 1995 ERITREA DEMOGRAPHIC AND HEALTH SURVEY

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APPENDIX E

QUESTIONNAIRES

THE STATE OF ERITREA
OFFICE OF THE PRESIDENT
NATIONAL STATISTICS OFFICE

ERITREA DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD SCHEDULE

IDENTIFICATION

AWRAJA .....

WEREDA .....

VILLAGE/TOWN NAME _____

ASMARA=1, OTHER TOWN=2, RURAL=3.....

CLUSTER NUMBER .....

BUILDING NUMBER ..... |_|_|_|_|

HOUSEHOLD NUMBER .....

NAME OF HOUSEHOLD HEAD_____

HOUSEHOLD SELECTED FOR MALE SURVEY? (YES=1, NO=2).....

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY / MONTH / YEAR
TEAM				TEAM
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER /COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXT. PERIOD
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER_____ (Specify)

LANGUAGE:**

QUESTIONNAIRE | LANGUAGE OF INTERVIEW | NATIVE LANGUAGE OF RESPONDENT

**LANGUAGE CODES: 01=AFAR 02=BILEN 03=HEDARIB (TOBEDAWI) 04=KUNAMA 05=NARA 06=RASHAIDA (ARABIC) 07=SAHO 08=TIGRE 09=TIGRIGNA 10=OTHER

TRANSLATOR USED (NOT AT ALL=1, SOMETIMES=2, ALL THE TIME=3).....

TOTAL IN HOUSEHOLD |_|_|

TOTAL ELIGIBLE WOMEN |_|_|

TOTAL ELIGIBLE MEN |_|_|

LINE NO. OF RESPONDENT TO HOUSEHOLD SCHEDULE |_|_|

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

ALL INFORMATION COLLECTED IS CONFIDENTIAL AND IS ONLY FOR STATISTICAL USE.

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATION TO HEAD OF HOUSEHOLD*	RESIDENCE		SEX	AGE	EDUCATION (IF AGE 6 YEARS OR OLDER)			PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD***				IF AGE >=15	ASK FOR THOSE AGE 10 YEARS OR MORE				ELIGIBILITY WOMEN	ELIGIBILITY MEN
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?	Does (NAME) usually live here?	Did (NAME) stay here last night?	Is (NAME) male or female?	How old is (NAME)?	Has (NAME) ever been to school? IF YES, ASK: Was under the old or the new system?	IF ATTENDED SCHOOL: What is the highest level of school (NAME) attended? What is the highest grade (NAME) completed at that level?**	IF AGE LESS THAN 25 YEARS: Is (NAME) still in school?	Is (NAME)'s natural mother alive?	IF ALIVE: Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER	Is (NAME)'s natural father alive?	IF ALIVE: Does (NAME)'s natural father live in this household? IF YES: What is his name RECORD FATHER' LINE NUMBER	What is (NAME's) current marital status? SEE CODES BELOW a	Did (NAME) worked during last month?	IF YES IN QUESTION 14B: ASK ASK QUESTIONS 14C AND14D: Is (NAME) paid in cash or kind for the work he/she does? 1. CASH 2. KIND 3. BOTH 4. NOT PAID	What is the main work that (NAME) does?	OCCUPATION CODE	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59 (IF HOUSEHOLD FALLS IN MEN'S SAMPLE).
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(14A)	(14B)	(14C)	(14D)	(14E)	(15)	(15A)
			YES NO	YES NO	M F	IN YEARS	OLD NEW NO	LEVEL GRADE	YES NO	YES NO DK		YES NO DK			YES NO					
01			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			01	01
02			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			02	02
03			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			03	03
04			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			04	04
05			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			05	05
06			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			06	06
07			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			07	07

LINE (1)	RESIDENTS/VISITORS (2)	RELATION (3)	RESIDENCE (4)	RESIDENCE (5)	SEX (6)	AGE (7)	SCHOOL (8)	EDUCATION (9)	(10)	PARENTAL SURVIVORSHIP AND RESIDENCE (11)	(12)	(13)	(14)	M. STAT. (14A)	LABOURFORCE PARTICIAPTION (14B)	(14C)	(14D)	(14E)	ELIG. (15)	ELIG. (15A)
			YES NO	YES NO	M F	IN YEARS	OLD NEW NO	LEVEL GRADE	YES NO	YES NO DK		YES NO DK			YES NO					
08			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			08	08
09			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			09	09
10			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			10	10
11			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			11	11
12			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			12	12
13			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			13	13
14#			1 2	1 2	1 2		1 2 3		1 2	1 2 8		1 2 8			1 2	1 2 3 4			14	14

TICK HERE IF CONTINUATION SHEET USED ☐ NUMBER OF ELIGIBLE WOMEN ☐☐ NUMBER OF ELIGIBLE MEN ☐☐

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night that have not been listed? YES ☐ → ENTER EACH IN TABLE NO ☐

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = CO-WIFE
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/STEP CHILD
12 = NOT RELATED
98 = DON'T KNOW

** CODES FOR Q.9
EDUCATION LEVEL:
1 = PRIMARY 2 = MIDDLE
3 = SECONDARY 4 = HIGHER
8 = DON'T KNOW

EDUCATION GRADE:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

*** Q.11 THROUGH Q.14:
These questions refer to the biological parents of the child. Record 00 if parent not member of household.

@ MARITAL STATUS CODES
1 = MARRIED
2 = WIDOWED
3 = DIVORCED
4 = SINGLE/NEVER MARRIED

The questionnaire has spaces to record up to 18 household members.

Q15B During the past two years, that is 24 months, has any of the usual members of this household died?

YES ☐ NO ☐ → SKIP TO 16

Now we would like some information about all of the deaths that occured in this household to usual residents during the last 24 months.

	NAME OF PERSON	SEX	AGE AT DEATH	DATE OF DEATH		MOTHER OF THE DECEASED	
				MONTH	YEAR		
	Please give me the names of all the persons who were usual residents of this household and died during the last 24 months, that is, since (MONTH OF INTERVIEW) 1993. (15C)	Was (NAME) male or female ? (15D)	How old was (NAME) when he/she died? RECORD IN COMPLETED YEARS (15E)	In what month did (NAME) die? PROBE: During what season? (15F)	In what year did (NAME) die? PROBE: this year? or last year? (15G)	Does NAME's mother live in the household? (15H)	IF YES IN 15H, NOTE THE LINE NUMBER OF THE MOTHER. (15I)
		M F	YEARS	MONTH	YEAR	Y N	L. No.
1		1 2	☐☐	☐☐	9☐	1 2	☐☐
2		1 2	☐☐	☐☐	9☐	1 2	☐☐
3		1 2	☐☐	☐☐	9☐	1 2	☐☐
4		1 2	☐☐	☐☐	9☐	1 2	☐☐

TOTAL DEATHS IN HOUSEHOLD ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
16	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO RESIDENCE/YARD/PLOT.....11 PUBLIC TAP.....12 WELL WATER WELL IN RESIDENCE/YARD/PLOT..21 PUBLIC WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/LAKE.....33 DAM.....34 RAINWATER.....41 TANKER TRUCK.....51 BOTTLED WATER.....61 OTHER_____ 96 (SPECIFY)	→18 →18 →18 →18
17	How long does it take to go there, get water, and come back?	MINUTES..... ☐☐☐ ON PREMISES.....996	
17A	How long is the normal wait to take your turn to get water at the (NAME OF THE WATER SOURCE)?	MINUTES..... ☐☐☐ NO WAIT.....996	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
18	What kind of toilet facility does your household have?	FLUSH TOILET OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 PIT TOILET/LATRINE TRADITIONAL PIT TOILET.....21 VENTILATED IMPROVED PIT (VIP) LATRINE.....22 NO FACILITY/BUSH/FIELD.....31 OTHER_____ 96 (SPECIFY)	
19	Does your household have: Electricity? A radio? A television? A telephone? A refrigerator?	YES NO ELECTRICITY.....1 2 RADIO.....1 2 TELEVISION.....1 2 TELEPHONE.....1 2 REFRIGERATOR.....1 2	
20A	How many rooms excluding kitchen and toilet in this dwelling are for the exclusive use for the members of this household?	ROOMS..... [ ][ ]	
20B	How many rooms in your household are used for sleeping?	ROOMS..... [ ][ ]	
20C	Are any farm animals kept within the living area of the household?	YES.....1 NO.....2	
21	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND.....11 DUNG.....12 RUDIMENTARY FLOOR WOOD PLANKS.....21 PALM/BAMBOO.....22 FINISHED FLOOR PARQUET OR POLISHED WOOD.....31 VINYL OR ASPHALT STRIPS.....32 CERAMIC TILES.....33 CEMENT.....34 CARPET.....35 OTHER_____ 96 (SPECIFY)	
22	Does any member of your household own: A donkey cart? A bicycle? A motorcycle? A car?	YES NO DONKEY CART.....1 2 BICYCLE.....1 2 MOTORCYCLE.....1 2 CAR.....1 2	
22A	What fuel is used for cooking in your household?	GAS.....01 ELECTRICITY.....02 KEROSENE.....03 COAL/CHARCOAL.....04 WOOD.....05 ANIMAL DUNG CAKES.....06 OTHER_____ 96 (SPECIFY)	
23	What type of salt is usually used for cooking in your household? (ASK TO SEE SALT PACKAGE).	LOCAL SALT.....01 PACKAGED SALT (IODIZED).....02 PACKAGED SALT (NOT IODIZED)....03 SALT FOR ANIMALS.....04 OTHER_____ 96 (SPECIFY)	

THE STATE OF ERITREA
OFFICE OF THE PRESIDENT
NATIONAL STATISTICS OFFICE

ERITREA DEMOGRAPHIC AND HEALTH SURVEY
WOMEN'S QUESTIONNAIRE

IDENTIFICATION

AWRAJA .....

WEREDA .....

VILLAGE/TOWN NAME _____

ASMARA=1, OTHER TOWN=2, RURAL=3.....

CLUSTER NUMBER .....

BUILDING NUMBER ..... _____

HOUSEHOLD NUMBER .....

NAME OF HOUSEHOLD HEAD_____

NAME AND LINE NUMBER OF WOMAN_____

IS SELECTED WOMAN A USUAL RESIDENT? (YES= 1, NO=2) .....

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY
				MONTH
				YEAR
TEAM				TEAM
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (specify)

LANGUAGE:**

QUESTIONNAIRE ____ LANGUAGE OF INTERVIEW ____ NATIVE LANGUAGE RESPONDENT ____

**LANGUAGE CODES: 01=AFAR 02=BILEN 03=HEDARIB (TOBEDAWI) 04=KUNAMA 05=NARA 06=RASHAIDA (ARABIC) 07=SAHO 08=TIGRE 09=TIGRIGNA 10=OTHER

TRANSLATOR USED? (NOT AT ALL=1, SOMETIMES=2, ALL THE TIME=3).....

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

ALL INFORMATION COLLECTED IS CONFIDENTIAL AND IS ONLY FOR STATISTICAL USE.

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR..... [ ][ ] MINUTES..... [ ][ ]	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town or in a village?	CITY.....1 TOWN.....2 VILLAGE.....3	
102A	What was the name of the village/town in which you lived as a child? RECORD NAME OF VILLAGE/TOWN, AND AWRAJA, IF PLACE WAS OUTSIDE OF ERITREA, NAME OF THE COUNTRY.	VILLAGE/TOWN_____ AWRAJA NAME_____ [ ][ ] COUNTRY _____	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	YEARS..... [ ][ ] ALWAYS.....95 VISITOR.....96	 →105
104	Just before you moved here, did you live in a city, in a town or a village?	CITY.....1 TOWN.....2 VILLAGE.....3	
104A	What was the name of the Awraja in which you lived just before you moved here? RECORD NAME OF AWRAJA, IF PLACE WAS OUTSIDE OF ERITREA, NAME OF THE COUNTRY.	AWRAJA NAME_____ [ ][ ] COUNTRY_____	
104B	What was the main reason for your move?	LIBERATION.....01 WAR.....02 DROUGHT/DEFORESTATION.....03 FAMINE.....04 EMPLOYMENT.....05 EDUCATION.....06 SECURITY.....07 MARRIAGE.....08 OWN OR BETTER HOME.....09 OTHER_____96 (Specify)	
105	In what month and year were you born?	MONTH..... [ ][ ] DON'T KNOW MONTH.....98 YEAR..... [ ][ ] DON'T KNOW YEAR.....98	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... [ ][ ]	
107	Have you ever attended school? IF YES, ASK: Was it under the old or the new system?	YES, OLD SYSTEM.....1 YES, NEW SYSTEM.....2 NO.....3	 →114
108	What is the highest level of school you attended: primary, middle, secondary, or higher?	PRIMARY.....1 MIDDLE.....2 SECONDARY.....3 HIGHER.....4	
109	What is the highest grade you completed at that level?	GRADE..... [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110	CHECK 106: AGE 24 OR BELOW ☐ / AGE 25 OR ABOVE ☐		→113
111	Are you currently attending school?	YES.....1 NO.....2	→113
112	What was the main reason you stopped attending school?	GOT PREGNANT.....01 GOT MARRIED.....02 TO CARE FOR YOUNGER CHILDREN...03 FAMILY NEEDED HELP ON FARM OR IN BUSINESS.....04 COULD NOT PAY SCHOOL FEES.....05 NEEDED TO EARN MONEY.....06 GRADUATED/HAD ENOUGH SCHOOLING.07 DID NOT PASS ENTRANCE EXAMS....08 DID NOT LIKE SCHOOL.....09 SCHOOL NOT ACCESSIBLE/TOO FAR..10 OTHER_____ 96 (SPECIFY) DON'T KNOW.....98	
113	CHECK 108: PRIMARY ☐ / MIDDLE SCHOOL OR HIGHER ☐		→115
114	Can you read and understand a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	→116
115	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
116	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	
117	Do you usually watch television at least once a week?	YES.....1 NO.....2	
118	What is your religion?	ORTHODOX.....1 CATHOLIC.....2 PROTESTANT.....3 MUSLIM.....4 TRADITIONAL BELIEVER.....5 OTHER_____6 (Specify)	
119	To which ethnic group do you belong?	AFAR.....01 BILEN.....02 HEDARIB.....03 KUNAMA.....04 NARA.....05 RASHAIDA.....06 SAHO.....07 TIGRE.....08 TIGRIGNA.....09 OTHER_____96 (Specify)	
120	CHECK COVER PAGE: THE WOMAN INTERVIEWED IS NOT A USUAL RESIDENT ☐ / THE WOMAN INTERVIEWED IS A USUAL RESIDENT ☐		→201
121	Now I would like to ask about the place in which you usually live. What is the name of the place in which you usually live? _____ (NAME OF PLACE) Is that a city, a town or a village?	CITY.....1 TOWN.....2 VILLAGE.....3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	In which Awraja is that located? IF OUTSIDE ERITREA, WRITE '96'	AWRAJA NAME..... [ ][ ]	
123	Now I would like to ask about the household in which you usually live. What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO RESIDENCE/YARD/PLOT.....11 PUBLIC TAP.....12 WELL WATER WELL IN RESIDENCE/YARD/PLOT..21 PUBLIC WELL.....22 SURFACE WATER SPRING.....31 RIVER/STREAM.....32 POND/LAKE.....33 DAM.....34 RAINWATER.....41 TANKER TRUCK.....51 BOTTLED WATER.....61 OTHER_____ 96 (SPECIFY)	 →125 →125 →125 →125
124	How long does it take to go there, get water, and come back?	MINUTES..... [ ][ ][ ] ON PREMISES.....996	
124A	How long is the normal wait to take your turn to get water at the (NAME OF THE WATER SOURCE)?	MINUTES..... [ ][ ][ ] NO WAIT.....996	
125	What kind of toilet facility does your household have?	FLUSH TOILET OWN FLUSH TOILET.....11 SHARED FLUSH TOILET.....12 PIT TOILET/LATRINE TRADITIONAL PIT TOILET.....21 VENTILATED IMPROVED PIT (VIP) LATRINE.....22 NO FACILITY/BUSH/FIELD.....31 OTHER_____ 96 (SPECIFY)	
126	Does your household have: Electricity? A radio? A television? A telephone? A refrigerator?	YES NO ELECTRICITY.....1 2 RADIO.....1 2 TELEVISION.....1 2 TELEPHONE.....1 2 REFRIGERATOR.....1 2	
127	Could you describe the main material of the floor in your dwelling?	NATURAL FLOOR EARTH/SAND.....11 DUNG.....12 RUDIMENTARY FLOOR WOOD PLANKS.....21 PALM/BAMBOO.....22 FINISHED FLOOR PARQUET OR POLISHED WOOD.....31 VINYL OR ASPHALT STRIPS.....32 CERAMIC TILES.....33 CEMENT.....34 CARPET.....35 OTHER_____ 96 (SPECIFY)	
127A	How many rooms excluding kitchen and bathroom in your dwelling are for exclusive use of the members of your household?	ROOMS..... [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
127B	How many rooms in your household are used for sleeping?	ROOMS..... [ ][ ]	
127C	Are any farm animals kept within the living area of your household?	YES.....1 NO.....2	
128	Does any member of your household own: A donkey cart? A bicycle? A motorcycle? A car?	YES NO DONKEY CART.....1 2 BICYCLE.....1 2 MOTORCYCLE.....1 2 CAR.....1 2	
129	What fuel is used for cooking in your household?	GAS.....01 ELECTRICITY.....02 KEROSENE.....03 COAL/CHARCOAL.....04 WOOD.....05 ANIMAL DUNG CAKES.....06 OTHER_____ 96 (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	 →206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES.....1 NO.....2	 →204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME..... [ ][ ] DAUGHTERS AT HOME..... [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES.....1 NO.....2	 →206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE..... [ ][ ] DAUGHTERS ELSEWHERE..... [ ][ ]	
206	Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but survived only a few hours or days?	YES.....1 NO.....2	 →208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD..... [ ][ ] GIRLS DEAD..... [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL..... [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL ____ births during your life. Is that correct? YES [ ] NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS [ ] NO BIRTHS [ ]		→226A

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

212 What name was given to your (first/next) baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season was he/she born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE Is (NAME) living with you?	219 IF DEAD: How old was (NAME) when he/she died? IF '1 YR.', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	220 FROM YEAR OF BIRTH OF (NAME) SUBTRACT YEAR OF PREVIOUS BIRTH. IS THE DIFFERENCE 4 OR MORE?	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
01	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3	[redacted]	
02	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 (NEXT BIRTH)	YES..1 NO...2
03	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 (NEXT BIRTH)	YES..1 NO...2
04	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 (NEXT BIRTH)	YES..1 NO...2
05	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 (NEXT BIRTH)	YES..1 NO...2
06	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 (NEXT BIRTH)	YES..1 NO...2
07	SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 (NEXT BIRTH)	YES..1 NO...2

	212 What name was given to your next baby? (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season was he/she born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE Is (NAME) living with you?	219 IF DEAD: How old was (NAME) when he/she died? IF '1 YR.', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	220 FROM YEAR OF BIRTH OF (NAME) SUBTRACT YEAR OF PREVIOUS BIRTH. IS THE DIFFERENCE 4 OR MORE?	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
08		SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 → (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 → (NEXT BIRTH)	YES..1 NO...2
09		SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 → (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 → (NEXT BIRTH)	YES..1 NO...2
10		SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 → (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 → (NEXT BIRTH)	YES..1 NO...2
11		SING..1 MULT..2	BOY...1 GIRL..2	MONTH.. YEAR...	YES..1 NO...2 → 219	AGE IN YEARS	YES...1 NO....2 → (GO TO 220)	DAYS....1 MONTHS..2 YEARS...3	YES....1 NO.....2 → (NEXT BIRTH)	YES..1 NO...2

222	FROM YEAR OF INTERVIEW SUBTRACT YEAR OF LAST BIRTH. IS THE DIFFERENCE 4 YEARS OR MORE?	YES.....1 NO.....2 → GO TO 224
223	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES.....1 NO.....2

224 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME → CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED.

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED.

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED.

FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.

NUMBERS ARE DIFFERENT → (PROBE AND RECONCILE)

225 CHECK 215 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 1992.
IF NONE, RECORD '0'.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226A	(In addition to the pregnancies which ended in live births,) have you had any other pregnancy which ended in a stillbirth, miscarriage, or an abortion?	YES.....1 NO.....2	→227
226B	How many pregnancies ended in still births? IF NONE, ENTER "00".	STILLBIRTHS..... [ ][ ]	
226C	How many pregnancies ended in miscarriages or abortions? IF NONE, ENTER "00".	MISCARRIAGES OR ABORTIONS..... [ ][ ]	
227	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	→236
228	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS..... [ ][ ]	
229	At the time you became pregnant, did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> to become pregnant at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	
236	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] IN MENOPAUSE.....994 BEFORE LAST BIRTH.....995 NEVER MENSTRUATED.....996	
237	Between the first day of a woman's period and the first day of her <u>next</u> period, are there certain times when she has a greater chance of becoming pregnant than other times?	YES.....1 NO.....2 DON'T KNOW.....8	→301
238	During which times of the monthly cycle does a woman have the greatest chance of becoming pregnant?	DURING HER PERIOD.....01 RIGHT AFTER HER PERIOD HAS ENDED.....02 IN THE MIDDLE OF THE CYCLE.....03 JUST BEFORE HER PERIOD BEGINS..04 OTHER_____ 96 (SPECIFY) DON'T KNOW.....98	

SECTION 3. CONTRACEPTION

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.

CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
THEN PROCEED DOWN COLUMN 302, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED.
THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 301 OR 302, ASK 303.

	301 Which ways or methods have you heard about?	302 Have you ever heard of (METHOD)?		303 Have you ever used (METHOD)?
	SPONTANEOUS YES	PROBED YES	PROBED NO	
01	PILL Women can take a pill every day.	1	2	3	YES.....1 NO.....2
02	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	1	2	3	YES.....1 NO.....2
03	INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	1	2	3	YES.....1 NO.....2
05	DIAPHRAGM,FOAM,JELLY Women can place a sponge, suppository, diaphragm, jelly, or cream inside themselves before intercourse.	1	2	3	YES.....1 NO.....2
06	CONDOM Men can use a rubber sheath during sexual intercourse.	1	2	3	YES.....1 NO.....2
07	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	1	2	3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2
08	MALE STERILIZATION Men can have an operation to avoid having any more children.	1	2	3	Have you ever had a partner who had an operation to avoid having children? YES.....1 NO.....2
09	RHYTHM,PERIODIC ABSTINENCE Every month that a woman is sexually active she can avoid having sexual intercourse on the days of the month she is most likely to get pregnant.	1	2	3	YES.....1 NO.....2
10	WITHDRAWAL Men can be careful and pull out before climax.	1	2	3	YES.....1 NO.....2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	1		3	
		_____ (SPECIFY)			YES.....1 NO.....2
		_____ (SPECIFY)			YES.....1 NO.....2

304 CHECK 303:

NOT A SINGLE "YES" (NEVER USED) ☐ ↓

AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 309

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
305	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES.....1 NO.....2	 →331
307	What have you used or done? CORRECT 303 AND 304 (AND 302 IF NECESSARY).	_____	
309	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN..... [ ][ ]	
310	When you first began to use family planning, did you want to have another child but at a later time, or did you not want to have another child at all?	WANTED CHILD LATER.....1 DID NOT WANT ANOTHER CHILD.....2 OTHER_____ 6 (SPECIFY)	
311	CHECK 303: WOMAN NOT STERILIZED [ ] WOMAN STERILIZED [ ]		→314A
312	CHECK 227: NOT PREGNANT OR UNSURE [ ] PREGNANT [ ]		→332
313	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2	 →331
314 314A	Which method are you using? CIRCLE '07' FOR FEMALE STERILIZATION.	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER_____ 96 (SPECIFY)	 →326 →318 →323 →326
317	How much does one packet (cycle) of pills cost you?	COST..... [ ][ ][ ] FREE.....996 DON'T KNOW.....998	 →326
318	Where did the sterilization take place? IF SOURCE IS HOSPITAL WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 OTHER PUBLIC_____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC.....21 PRIVATE DOCTOR.....23 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER_____ 96 (SPECIFY) DON'T KNOW.....98	
319	Do you regret that (you/your husband) had the operation not to have any (more) children?	YES.....1 NO.....2	 →321

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
320	Why do you regret the operation?	RESPONDENT WANTS ANOTHER CHILD.01 PARTNER WANTS ANOTHER CHILD....02 SIDE EFFECTS.....03 CHILD DIED.....04 OTHER_____ 96 (SPECIFY)	
321	In what month and year was the sterilization performed?	MONTH..... [ ][ ] YEAR..... [ ][ ]	→335
323	How do you determine which days of your monthly cycle not to have sexual relations?	BASED ON CALENDAR.....01 BASED ON BODY TEMPERATURE.....02 BASED ON CERVICAL MUCUS (BILLINGS METHOD).....03 BASED ON BODY TEMPERATURE AND CERVICAL MUCUS.....04 NO SPECIFIC SYSTEM.....05 OTHER_____ 96 (SPECIFY)	
326	For how many months have you been using (METHOD) continuously? IF LESS THAN 1 MONTH, RECORD '00'.	MONTHS..... [ ][ ] 8 YEARS OR LONGER.....96	
327	CHECK 314: CIRCLE METHOD CODE:	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER METHOD.....96	→335 →332
328	Where did you obtain (METHOD) the last time? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 GOVERNMENT HEALTH CENTER.....12 FAMILY PLANNING CLINIC.....13 OTHER PUBLIC_____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC.....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER PRIVATE SECTOR SHOP.....31 FRIENDS/RELATIVES.....33 OTHER_____ 96 (SPECIFY)	→335

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
331	What is the main reason you are not using a method of contraception to avoid pregnancy?	NOT MARRIED.....11 FERTILITY-RELATED REASONS NOT HAVING SEX.....21 INFREQUENT SEX.....22 MENOPAUSAL/HYSTERECTOMY.....23 SUBFECUND/INFECUND.....24 POSTPARTUM/BREASTFEEDING.....25 WANTS (MORE) CHILDREN.....26 OPPOSITION TO USE RESPONDENT OPPOSED.....31 HUSBAND OPPOSED.....32 OTHERS OPPOSED.....33 RELIGIOUS PROHIBITION.....34 LACK OF KNOWLEDGE KNOWS NO METHOD.....41 KNOWS NO SOURCE.....42 METHOD-RELATED REASONS HEALTH CONCERNS.....51 FEAR OF SIDE EFFECTS.....52 LACK OF ACCESS/TOO FAR.....53 COST TOO MUCH.....54 INCONVENIENT TO USE.....55 INTERFERES WITH BODY'S NORMAL PROCESSES.....56 OTHER_____ 96 (SPECIFY) DON'T KNOW.....98	
332	Do you know of a place where you can obtain a method of family planning?	YES.....1 NO.....2	→335
333	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 GOVERNMENT HEALTH CENTER.....12 FAMILY PLANNING CLINIC.....13 OTHER PUBLIC_____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC.....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER PRIVATE SECTOR SHOP.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER_____ 96 (SPECIFY)	
335	Have you visited a health facility for any reason in the last 12 months?	YES.....1 NO.....2	→337
336	Did any staff member at the health facility speak to you about family planning methods?	YES.....1 NO.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
337	Do you think that breastfeeding can affect a woman's chance of becoming pregnant?	YES.....1 NO.....2 DON'T KNOW.....8	 →401
338	Do you think a woman's chance of becoming pregnant is increased or decreased by breastfeeding?	INCREASED.....1 DECREASED.....2 DEPENDS.....3 DON'T KNOW.....8	→401
339	CHECK 21D: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐		→401
340	Have you ever relied on breastfeeding as a method of avoiding pregnancy?	YES.....1 NO.....2	 →401
341	CHECK 312 AND 314: PREGNANT OR CURRENTLY USING: FEMALE OR MALE STERILIZATION ☐ ALL OTHERS ☐ ↓		→401
342	Are you currently relying on breastfeeding to avoid getting pregnant?	YES.....1 NO.....2	

SECTION 4A. PREGNANCY AND BREASTFEEDING

401	CHECK 225: ONE OR MORE BIRTHS SINCE JAN. 1992 ☐	NO BIRTHS SINCE JAN. 1992 ☐ → (SKIP TO 467)	
402	ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1992 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS, USE ADDITIONAL FORMS). Now I would like to ask you some more questions about the health of all your children born in the past three years. (We will talk about one child at a time.)		
403	LINE NUMBER FROM Q212	LAST BIRTH LINE NUMBER..... ☐☐	NEXT-TO-LAST BIRTH LINE NUMBER..... ☐☐
404	FROM Q212 AND Q216	NAME _____ ALIVE ☐ DEAD ☐	NAME _____ ALIVE ☐ DEAD ☐
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you want no (more) children at all?	THEN.....1 (SKIP TO 407) LATER.....2 NO MORE.....3 (SKIP TO 407)	THEN.....1 (SKIP TO 407) LATER.....2 NO MORE.....3 (SKIP TO 407)
406	How much longer would you like to have waited?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ DON'T KNOW.....998	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ DON'T KNOW.....998
407	When you were pregnant with (NAME), did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B AUXILIARY MIDWIFE.....C OTHER PERSON TRADITIONAL BIRTH ATTENDANT.....D OTHER_____ X (SPECIFY) NO ONE.....Y (SKIP TO 410)	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B AUXILIARY MIDWIFE.....C OTHER PERSON TRADITIONAL BIRTH ATTENDANT.....D OTHER_____ X (SPECIFY) NO ONE.....Y (SKIP TO 410)
408	How many months pregnant were you when you first received antenatal care?	MONTHS..... ☐☐ DON'T KNOW.....98	MONTHS..... ☐☐ DON'T KNOW.....98
409	How many times did you receive antenatal care during this pregnancy?	NO. OF TIMES..... ☐☐ DON'T KNOW.....98	NO. OF TIMES..... ☐☐ DON'T KNOW.....98
410	When you were pregnant with (NAME) were you given an injection to prevent the baby from getting tetanus, that is, convulsions after birth?	YES.....1 NO.....2 (SKIP TO 411A) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 411A) DON'T KNOW.....8
411	During this pregnancy, how many times did you get this injection?	TIMES..... ☐ DON'T KNOW.....8	TIMES..... ☐ DON'T KNOW.....8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
411A	During this pregnancy, did you receive iron tablets?	YES .....1 NO.....2	YES.....1 NO.....2
411B	During this pregnancy, did you receive multiple vitamin tablets?	YES .....1 NO.....2	YES.....1 NO.....2
412	Where did you give birth to (NAME)?	HOME YOUR HOME.....11 OTHER HOME.....12 PUBLIC SECTOR GOVT. HOSPITAL.....21 GOVT. HEALTH CENTER...22 GOVT. HEALTH STATION..23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC..31 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY)	HOME YOUR HOME.....11 OTHER HOME.....12 PUBLIC SECTOR GOVT. HOSPITAL.....21 GOVT. HEALTH CENTER...22 GOVT. HEALTH STATION..23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC..31 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY)
413	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B AUXILIARY MIDWIFE.....C OTHER PERSON TRADITIONAL BIRTH ATTENDANT.....D RELATIVE/FRIEND.....E OTHER_____ X (SPECIFY) NO ONE.....Y	HEALTH PROFESSIONAL DOCTOR.....A NURSE/MIDWIFE.....B AUXILIARY MIDWIFE.....C OTHER PERSON TRADITIONAL BIRTH ATTENDANT.....D RELATIVE/FRIEND.....E OTHER_____ X (SPECIFY) NO ONE.....Y
414	At the time of the birth of (NAME), did you have any of the following problems: Long labor, that is, did your regular contractions last more than 12 hours? Excessive bleeding that was so much that you feared it was life threatening? A high fever with bad smelling vaginal discharge? Convulsions not caused by fever?	YES NO LABOR MORE THAN 12 HOURS....1 2 EXCESSIVE BLEEDING.....1 2 FEVER/BAD SMELLING VAG. DISCHARGE.....1 2 CONVULSIONS.....1 2	YES NO LABOR MORE THAN 12 HOURS....1 2 EXCESSIVE BLEEDING.....1 2 FEVER/BAD SMELLING VAG. DISCHARGE.....1 2 CONVULSIONS.....1 2
415	Was (NAME) delivered by caesarian section?	YES.....1 NO.....2	YES.....1 NO.....2
416	When (NAME) was born, was he/she: very large, larger than average, average, smaller than average, or very small?	VERY LARGE.....1 LARGER THAN AVERAGE.....2 AVERAGE.....3 SMALLER THAN AVERAGE.....4 VERY SMALL.....5 DON'T KNOW.....8	VERY LARGE.....1 LARGER THAN AVERAGE.....2 AVERAGE.....3 SMALLER THAN AVERAGE.....4 VERY SMALL.....5 DON'T KNOW.....8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
417	Was (NAME) weighed at birth?	YES.....1 NO.....2 (SKIP TO 419)	YES.....1 NO.....2 (SKIP TO 420)
418	How much did (NAME) weigh? RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM CARD.....1 [ ][ ][ ][ ] GRAMS FROM RECALL.....2 [ ][ ][ ][ ] DON'T KNOW.....99998	GRAMS FROM CARD.....1 [ ][ ][ ][ ] GRAMS FROM RECALL.....2 [ ][ ][ ][ ] DON'T KNOW.....99998
419	Has your period returned since the birth of (NAME)?	YES.....1 (SKIP TO 421) NO.....2 (SKIP TO 422)	
420	Did your period return between the birth of (NAME) and your next pregnancy?		YES.....1 NO.....2 (SKIP TO 424)
421	For how many months after the birth of (NAME) did you not have a period?	MONTHS..... [ ][ ] DON'T KNOW.....98	MONTHS..... [ ][ ] DON'T KNOW.....98
422	CHECK 227: RESPONDENT PREGNANT?	NOT PREGNANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 424)	
423	Have you resumed sexual relations since the birth of (NAME)?	YES.....1 NO.....2 (SKIP TO 425)	
424	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS..... [ ][ ] DON'T KNOW.....98	MONTHS..... [ ][ ] DON'T KNOW.....98
425	Did you ever breastfeed (NAME)?	YES.....1 NO.....2 (SKIP TO 431)	YES.....1 NO.....2 (SKIP TO 431)
426	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY.....000 HOURS.....1 [ ][ ] DAYS.....2 [ ][ ]	IMMEDIATELY.....000 HOURS.....1 [ ][ ] DAYS.....2 [ ][ ]
427	CHECK 404: CHILD ALIVE?	ALIVE [ ] DEAD [ ] (SKIP TO 429)	ALIVE [ ] DEAD [ ] (SKIP TO 429)
428	Are you still breastfeeding (NAME)?	YES.....1 (SKIP TO 432) NO.....2	YES.....1 (SKIP TO 432) NO.....2
429	For how many months did you breastfeed (NAME)?	MONTHS..... [ ][ ] DON'T KNOW.....98	MONTHS..... [ ][ ] DON'T KNOW.....98

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
430	Why did you stop breastfeeding (NAME)?	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 NOT ENOUGH MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE/AGE TO STOP.08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER_____ 96 (SPECIFY)	MOTHER ILL/WEAK.....01 CHILD ILL/WEAK.....02 CHILD DIED.....03 NIPPLE/BREAST PROBLEM...04 NOT ENOUGH MILK.....05 MOTHER WORKING.....06 CHILD REFUSED.....07 WEANING AGE/AGE TO STOP.08 BECAME PREGNANT.....09 STARTED USING CONTRACEPTION.....10 OTHER_____ 96 (SPECIFY)
431	CHECK 404: CHILD ALIVE?	ALIVE ☐ → (SKIP TO 434) DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 442)	ALIVE ☐ → (SKIP TO 434) DEAD ☐ → (GO BACK TO 405 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 442)
432	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS..... ☐☐	NUMBER OF NIGHTTIME FEEDINGS..... ☐☐
433	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS..... ☐☐	NUMBER OF DAYLIGHT FEEDINGS..... ☐☐
434	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
435	At any time yesterday or last night, was (NAME) given any of the following:	YES NO DK	YES NO DK
	Plain water?	PLAIN WATER.....1 2 8	PLAIN WATER.....1 2 8
	Sugar water?	SUGAR WATER.....1 2 8	SUGAR WATER.....1 2 8
	Juice?	JUICE.....1 2 8	JUICE.....1 2 8
	Tea/karkade/abake?	HERBAL TEA.....1 2 8	HERBAL TEA.....1 2 8
	Baby formula?	BABY FORMULA.....1 2 8	BABY FORMULA.....1 2 8
	Tinned or powdered milk?	TINNED/POWDR'D MLK..1 2 8	TINNED/POWDR'D MLK..1 2 8
	Fresh milk?	FRESH MILK.....1 2 8	FRESH MILK.....1 2 8
	Any other liquids?	OTHER LIQUIDS.....1 2 8	OTHER LIQUIDS.....1 2 8
	Injira, gaat, sebko, ajja, or biscuits?	INJIRA, GAT, SEBKO, AJJA, OR BISCUITS...1 2 8	INJIRA, GAT, SEBKO, AJJA, OR BISCUITS...1 2 8
	Eggs, fish, or poultry?	EGGS/FISH/POULTRY...1 2 8	EGGS/FISH/POULTRY...1 2 8
	Meat?	MEAT.....1 2 8	MEAT.....1 2 8
	Any other solid or semi-solid foods?	OTHER SOLID/ SEMI-SOLID FOODS..1 2 8	OTHER SOLID/ SEMI-SOLID FOODS..1 2 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
436	CHECK 435: FOOD OR LIQUID GIVEN YESTERDAY?	"YES" TO ONE OR MORE ☐ "NO/DK" TO ALL ☐ (SKIP TO 440)	"YES" TO ONE OR MORE ☐ "NO/DK" TO ALL ☐ (SKIP TO 440)
439	(Aside from breastfeeding,) how many times did (NAME) eat yesterday, including both meals and snacks? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES..... ☐ DON'T KNOW.....8	NUMBER OF TIMES..... ☐ DON'T KNOW.....8
440	On how many days during the last seven days was (NAME) given any of the following:	RECORD THE NUMBER OF DAYS.	RECORD THE NUMBER OF DAYS.
	Plain water?	PLAIN WATER..... ☐	PLAIN WATER..... ☐
	Any kind of milk (other than breast milk)?	MILK..... ☐	MILK..... ☐
	Liquids other than plain water or milk?	OTHER LIQUIDS..... ☐	OTHER LIQUIDS..... ☐
	Injira, gaat, sebko ajja, or biscuits	INJIRA, GAAT, SEBKO, AJJA, OR BISCUITS..... ☐	INJIRA, GAAT, SEBKO, AJJA, OR BISCUITS..... ☐
	Eggs, fish, or poultry?	EGGS/FISH/POULTRY..... ☐	EGGS/FISH/POULTRY..... ☐
	Meat?	MEAT..... ☐	MEAT..... ☐
	Any other solid or semi-solid foods? IF DON'T KNOW, RECORD '8'	OTHER SOLID/SEMI-SOLID FOODS..... ☐	OTHER SOLID/SEMI-SOLID FOODS..... ☐
441		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 442.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 442.

SECTION 4B. IMMUNIZATION AND HEALTH

442	ENTER LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1992 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS USE ADDITIONAL FORMS.)		
443	LINE NUMBER FROM Q212	LAST BIRTH LINE..... [ ][ ]	NEXT-TO-LAST BIRTH LINE..... [ ][ ]
444	FROM Q212 AND Q216	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 444 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 467.)	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 444 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 467.)
445	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN.....1 (SKIP TO 447) YES, NOT SEEN.....2 (SKIP TO 449) NO CARD.....3	YES, SEEN.....1 (SKIP TO 447) YES, NOT SEEN.....2 (SKIP TO 449) NO CARD.....3
446	Did you ever have a vaccination card for (NAME)?	YES.....1 (SKIP TO 449) NO.....2	YES.....1 (SKIP TO 449) NO.....2
447	(1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.	DAY MO YR	DAY MO YR
	BCG	BCG.... [ ][ ][ ][ ][ ][ ]	BCG.... [ ][ ][ ][ ][ ][ ]
	Polio 0 (at birth)	P0..... [ ][ ][ ][ ][ ][ ]	P0..... [ ][ ][ ][ ][ ][ ]
	Polio 1	P1..... [ ][ ][ ][ ][ ][ ]	P1..... [ ][ ][ ][ ][ ][ ]
	Polio 2	P2..... [ ][ ][ ][ ][ ][ ]	P2..... [ ][ ][ ][ ][ ][ ]
	Polio 3	P3..... [ ][ ][ ][ ][ ][ ]	P3..... [ ][ ][ ][ ][ ][ ]
	DPT 1	D1..... [ ][ ][ ][ ][ ][ ]	D1..... [ ][ ][ ][ ][ ][ ]
	DPT 2	D2..... [ ][ ][ ][ ][ ][ ]	D2..... [ ][ ][ ][ ][ ][ ]
	DPT 3	D3..... [ ][ ][ ][ ][ ][ ]	D3..... [ ][ ][ ][ ][ ][ ]
	Measles	MEA.... [ ][ ][ ][ ][ ][ ]	MEA.... [ ][ ][ ][ ][ ][ ]
447A	CHECK 447: CHILD RECEIVED ALL VACCINATIONS?	NO [ ] YES [ ] (SKIP TO 451)	NO [ ] YES [ ] (SKIP TO 451)
448	Has (NAME) received any vaccinations, that are not recorded on this card? RECORD "YES" ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, AND/OR MEASLES VACCINE(S).	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 447) NO.....2 DON'T KNOW.....8 (SKIP TO 451)	YES.....1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 447) NO.....2 DON'T KNOW.....8 (SKIP TO 451)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
449	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES.....1 NO.....2 (SKIP TO 451) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 451) DON'T KNOW.....8
450	Please tell me if (NAME) received any of the following vaccinations:		
450A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that left a scar?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
450B	Polio vaccine, that is, drops in the mouth?	YES.....1 NO.....2 (SKIP TO 450E) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 450E) DON'T KNOW.....8
450C	How many times were polio drops given?	NUMBER OF TIMES..... [ ]	NUMBER OF TIMES..... [ ]
450D	When was the first polio vaccine given, just after birth or later?	JUST AFTER BIRTH.....1 LATER.....2	JUST AFTER BIRTH.....1 LATER.....2
450E	DPT vaccination, that is, an injection usually given at the same time as polio drops?	YES.....1 NO.....2 (SKIP TO 450G) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 450G) DON'T KNOW.....8
450F	How many times?	NUMBER OF TIMES..... [ ]	NUMBER OF TIMES..... [ ]
450G	An injection to prevent measles?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
451	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
452	Has (NAME) been ill with a cough at any time in the last 2 weeks?	YES.....1 NO.....2 (SKIP TO 456) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 456) DON'T KNOW.....8
453	When (NAME) was ill with a cough, did he/she breathe faster than usual with short, fast breaths?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
454	Did you seek advice or treatment for the cough?	YES.....1 NO.....2 (SKIP TO 456)	YES.....1 NO.....2 (SKIP TO 456)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
455	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL.....A GOVT. HEALTH CENTER....B GOVT. HEALTH STATION...C OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC...G PHARMACY.....H PRIVATE DOCTOR.....I COMM. HEALTH WORKER....K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER PRIVATE SECTOR SHOP.....M TRAD. PRACTITIONER.....N OTHER_____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL.....A GOVT. HEALTH CENTER....B GOVT. HEALTH STATION...C OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC...G PHARMACY.....H PRIVATE DOCTOR.....I COMM. HEALTH WORKER....K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER PRIVATE SECTOR SHOP.....M TRAD. PRACTITIONER.....N OTHER_____ X (SPECIFY)
456	Has (NAME) had diarrhea in the last two weeks?	YES.....1 NO.....2 (SKIP TO 466) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 466) DON'T KNOW.....8
457	Was there any blood in the stools?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
458	On the worst day of the diarrhea, how many bowel movements did (NAME) have?	NUMBER OF BOWEL MOVEMENTS..... [ ][ ] DON'T KNOW.....98	NUMBER OF BOWEL MOVEMENTS..... [ ][ ] DON'T KNOW.....98
459	Was he/she given the same amount to drink as before the diarrhea, or more, or less?	SAME.....1 MORE.....2 LESS.....3 DON'T KNOW.....8	SAME.....1 MORE.....2 LESS.....3 DON'T KNOW.....8
460	Was he/she given the same amount of food to eat as before the diarrhea, or more, or less?	SAME.....1 MORE.....2 LESS.....3 DON'T KNOW.....8	SAME.....1 MORE.....2 LESS.....3 DON'T KNOW.....8
461	Was (NAME) given a fluid made from a special packet called maichow to drink?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
462	Was anything (else) given to treat the diarrhea?	YES.....1 NO.....2 (SKIP TO 464) DON'T KNOW.....8	YES.....1 NO.....2 (SKIP TO 464) DON'T KNOW.....8
463	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	RECOMMENDED HOME FLUID...A PILL OR SYRUP.....B INJECTION.....C (I.V.) INTRAVENOUS.....D HOME REMEDIES/ HERBAL MEDICINES.....E OTHER_____ X (SPECIFY)	RECOMMENDED HOME FLUID...A PILL OR SYRUP.....B INJECTION.....C (I.V.) INTRAVENOUS.....D HOME REMEDIES/ HERBAL MEDICINES.....E OTHER_____ X (SPECIFY)
464	Did you seek advice or treatment for the diarrhea?	YES.....1 NO.....2 (SKIP TO 466)	YES.....1 NO.....2 (SKIP TO 466)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
465	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL.....A GOVT. HEALTH CENTER....B GOVT. HEALTH STATION...C OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC...G PHARMACY.....H PRIVATE DOCTOR.....I COMM. HEALTH WORKER....K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER PRIVATE SECTOR SHOP.....M TRAD. PRACTITIONER.....N OTHER_____ X (SPECIFY)	PUBLIC SECTOR GOVT. HOSPITAL.....A GOVT. HEALTH CENTER....B GOVT. HEALTH STATION...C OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC...G PHARMACY.....H PRIVATE DOCTOR.....I COMM. HEALTH WORKER....K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER PRIVATE SECTOR SHOP.....M TRAD. PRACTITIONER.....N OTHER_____ X (SPECIFY)
466		GO BACK TO 444 IN NEXT COLUMN; OR, IF NO MORE BIRTHS GO TO 467	GO BACK TO 444 IN NEXT COLUMN; OR, IF NO MORE BIRTHS GO TO 467

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
467	When a child has diarrhea, should he/she be given less to drink than usual, about the same amount, or more than usual?	LESS TO DRINK.....1 ABOUT SAME AMOUNT TO DRINK.....2 MORE TO DRINK.....3 DON'T KNOW.....8	
468	When a child has diarrhea, should he/she be given less to eat than usual, about the same amount, or more than usual?	LESS TO EAT.....1 ABOUT SAME AMOUNT TO EAT.....2 MORE TO EAT.....3 DON'T KNOW.....8	
469	When a child is sick with diarrhea, what signs of illness would tell you that he or she should be taken to a health facility or health worker? RECORD ALL MENTIONED.	REPEATED WATERY STOOLS.....A ANY WATERY STOOLS.....B REPEATED VOMITING.....C ANY VOMITING.....D BLOOD IN STOOLS.....E FEVER.....F MARKED THIRST.....G NOT EATING/NOT DRINKING WELL....H GETTING SICKER/VERY SICK.....I NOT GETTING BETTER.....J OTHER_____ X (SPECIFY) DON'T KNOW.....Z	
470	When a child is sick with a cough, what signs of illness would tell you that he or she should be taken to a health facility or health worker? RECORD ALL MENTIONED.	FAST BREATHING.....A DIFFICULT BREATHING.....B NOISY BREATHING.....C FEVER.....D UNABLE TO DRINK.....E NOT EATING/NOT DRINKING WELL....F GETTING SICKER/VERY SICK.....G NOT GETTING BETTER.....H OTHER_____ X (SPECIFY) DON'T KNOW.....Z	
471	CHECK 461, ALL COLUMNS: NO CHILD RECEIVED ORS OR 461 NOT ASKED ☐ ↓ ANY CHILD RECEIVED ORS ☐		→501
472	Have you ever heard of a special product called maichow you can get for the treatment of diarrhea?	YES.....1 NO.....2	

SECTION 5. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND/PARTNER.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	
502	Are you currently married or living with a man?	YES, CURRENTLY MARRIED.....1 YES, LIVING WITH A MAN.....2 NO, NOT IN UNION.....3	→507
503	Do you currently have a regular sexual partner, an occasional sexual partner, or no sexual partner at all?	REGULAR SEXUAL PARTNER.....1 OCCASIONAL SEXUAL PARTNER.....2 NO SEXUAL PARTNER.....3	
504	Have you ever been married or lived with a man?	YES, FORMERLY MARRIED.....1 YES, LIVED WITH A MAN.....2 NO.....3	→511 →515
506	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED.....1 DIVORCED.....2 SEPARATED.....3	→511
507	Is your husband/partner living with you now or is he staying elsewhere?	LIVES WITH HER.....1 STAYING ELSEWHERE.....2	
508	Does your husband/partner have any other wives besides yourself?	YES.....1 NO.....2	→511
509	How many other wives does he have?	NUMBER..... [ ][ ] DON'T KNOW.....98	→511
510	Are you the first, second,.....wife?	RANK..... [ ][ ]	
511	Have you been married or lived with a man only once, or more than once?	ONCE.....1 MORE THAN ONCE.....2	
512	CHECK 511: MARRIED/LIVED WITH A MAN ONLY ONCE [ ] → In what month and year did you start living with your husband/partner? MARRIED/LIVED WITH A MAN MORE THAN ONCE [ ] → Now we will talk about your first husband/partner. In what month and year did you start living with him?	MONTH..... [ ][ ] DK MONTH.....98 YEAR..... [ ][ ] DK YEAR.....98	→515
513	How old were you when you started living with him?	AGE..... [ ][ ]	
515	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family planning issues. When was the last time you had sexual intercourse (if ever)?	NEVER.....000 DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....996	→608

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
516	CHECK 301 AND 302: KNOWS CONDOM ☐ → The last time you had sex, was a condom used? DOES NOT KNOW CONDOM ☐ → Some men use a condom, which means that they put a rubber sheath on their penis during sexual intercourse. The last time you had sex, was a condom used?	YES.....1 NO.....2 DON'T KNOW.....8	
517	Do you know where you can get condoms?	YES.....1 NO.....2	→519
518	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL.....11 GOVERNMENT HEALTH CENTER.....12 FAMILY PLANNING CLINIC.....13 OTHER PUBLIC_____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC.....21 PHARMACY.....22 PRIVATE DOCTOR.....23 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER PRIVATE SECTOR SHOP.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER_____ 96 (SPECIFY)	
519	How old were you when you first had sexual intercourse?	AGE..... ☐☐ FIRST TIME WHEN MARRIED.....96	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 314: NEITHER STERILIZED ☐ ↓ HE OR SHE STERILIZED ☐		→612
602	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ Now I have some questions about the future. Would you like to have (a/another) child or would you prefer not to have any (more) children? PREGNANT ☐ ↓ Now I have some questions about the future. After the child you are expecting now, would you like to have another child or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD.....1 NO MORE/NONE.....2 SAYS SHE CAN'T GET PREGNANT.....3 UNDECIDED/DON'T KNOW.....8	 →606 →604
603	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ ↓ After the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ SOON/NOW.....993 SAYS SHE CAN'T GET PREGNANT...994 AFTER MARRIAGE.....995 OTHER_____ 996 (SPECIFY) DON'T KNOW.....998	 →606
604	CHECK 227: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		→607
605	If you became pregnant in the next few weeks, would you be happy, unhappy, or would it not matter very much?	HAPPY.....1 UNHAPPY.....2 WOULD NOT MATTER.....3	
606	CHECK 313: USING A METHOD? NOT ASKED ☐ ↓ NOT CURRENTLY USING ☐ ↓ CURRENTLY USING ☐		→612
607	Do you think you will use a method to delay or avoid pregnancy within the next 12 months?	YES.....1 NO.....2 DON'T KNOW.....8	→609
608	Do you think you will use a method at any time in the future to delay or avoid pregnancy?	YES.....1 NO.....2 DON'T KNOW.....8	 →610
609	Which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER_____ 96 (SPECIFY) UNSURE.....98	→612

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
610	What is the main reason that you think you will never use a method?	NOT MARRIED.....11 FERTILITY-RELATED REASONS INFREQUENT SEX.....22 MENOPAUSAL/HYSTERECTOMY.....23 SUBFECUND/INFECUND.....24 WANTS MORE CHILDREN.....26 OPPOSITION TO USE RESPONDENT OPPOSED.....31 HUSBAND OPPOSED.....32 OTHERS OPPOSED.....33 RELIGIOUS PROHIBITION.....34 LACK OF KNOWLEDGE KNOWS NO METHOD.....41 KNOWS NO SOURCE.....42 METHOD-RELATED REASONS HEALTH CONCERNS.....51 FEAR OF SIDE EFFECTS.....52 LACK OF ACCESS/TOO FAR.....53 COST TOO MUCH.....54 INCONVENIENT TO USE.....55 INTERFERES WITH BODY'S NORMAL PROCESSES.....56 OTHER_____ 96 (SPECIFY) DON'T KNOW.....98	→612
611	Would you ever use a method if you were married?	YES.....1 NO.....2 DON'T KNOW.....8	
612	CHECK 216: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY)	→613A
613	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter?	BOYS NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY) GIRLS NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY) EITHER NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY)	
613A	What do you think is the best number of months or years between the birth of one child and the birth of the next child?	YEARS..... ☐☐ MONTHS..... ☐☐ OTHER_____9996 (Specify) DON'T KNOW.....9998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
613B	How long should a couple wait before starting sexual intercourse after the birth of a baby?	MONTHS..... [ ][ ] OTHER_____ 96 (Specify) DON'T KNOW.....98	
613C	Should a mother wait until she has completely stopped breastfeeding before starting to have sexual relations again, or it doesn't matter?	WAIT.....1 DOESN'T MATTER.....2	
614	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE.....1 DISAPPROVE.....2 NO OPINION.....3	
615	Is it acceptable or not acceptable to you for information on family planning to be provided: On the radio? On the television?	ACCEPT-ABLE / NOT ACCEPT-ABLE / DK RADIO.....1 / 2 / 8 TELEVISION.....1 / 2 / 8	
616	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine? From a poster? From leaflets or brochures?	YES / NO RADIO.....1 / 2 TELEVISION.....1 / 2 NEWSPAPER OR MAGAZINE.....1 / 2 POSTER.....1 / 2 LEAFLETS OR BROCHURES.....1 / 2	
618	In the last few months have you discussed the practice of family planning with your friends, neighbors, or relatives?	YES.....1 NO.....2	→620
619	With whom? Anyone else? RECORD ALL MENTIONED.	HUSBAND/PARTNER.....A MOTHER.....B FATHER.....C SISTER(S).....D BROTHER(S).....E DAUGHTER.....F MOTHER-IN-LAW.....G FRIENDS/NEIGHBORS.....H OTHER_____ X (SPECIFY)	
620	CHECK 502: YES, CURRENTLY MARRIED [ ] YES, LIVING WITH A MAN [ ] NO, NOT IN UNION [ ]		→637
621	Spouses/partners do not always agree on everything. Now I want to ask you about your husband's/partner's views on family planning. Do you think that your husband/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DON'T KNOW.....8	
622	How often have you talked to your husband/partner about family planning in the past year?	NEVER.....1 ONCE OR TWICE.....2 MORE OFTEN.....3	
623	Do you think your husband/partner wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DON'T KNOW.....8	
637	PRESENCE OF OTHERS AT THIS POINT.	YES / NO CHILDREN UNDER 10.....1 / 2 HUSBAND/PARTNER.....1 / 2 OTHER MALES.....1 / 2 OTHER FEMALES.....1 / 2	

SECTION 7A. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 502 AND 504: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN ☐ NEVER MARRIED AND NEVER IN UNION ☐		→703 →709
702	How old was your husband/partner on his last birthday?	AGE..... ☐☐	
703	Did your (last) husband/partner ever attend school? IF YES, ASK: Was it in the old system or in the new	YES, OLD SYSTEM.....1 YES, NEW SYSTEM.....2 NO.....3	→706
704	What was the highest level of school he attended: primary, secondary, or higher?	PRIMARY .....1 MIDDLE.....2 SECONDARY.....3 UNIVERSITY AND ABOVE.....4 DON'T KNOW.....8	→706
705	What was the highest (grade/form/year) he completed at that level?	GRADE..... ☐☐ DON'T KNOW.....98	
706	What is (was) your (last) husband/partner's occupation? That is, what kind of work does (did) he mainly do?	_____ ☐☐ _____ _____	
707	CHECK 706: WORKS (WORKED) IN AGRICULTURE ☐ DOES (DID) NOT WORK IN AGRICULTURE ☐		→709
708	(Does/did) your husband/partner work mainly on his own land or on family land, or (does/did) he rent land, or (does/did) he work on someone else's land?	HIS LAND.....1 FAMILY LAND.....2 RENTED LAND.....3 SOMEONE ELSE'S LAND.....4	
709	Aside from your own housework, are you currently working?	YES.....1 NO.....2	→712
710	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Are you currently doing any of these things or any other work?	YES.....1 NO.....2	→712
711	Have you done any work in the last 12 months?	YES.....1 NO.....2	→726
712	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
713	CHECK 712: WORKS IN AGRICULTURE ☐ DOES NOT WORK IN AGRICULTURE ☐		→715
714	Do you work mainly on your own land or on family land, or do you rent land, or work on someone else's land?	OWN LAND.....1 FAMILY LAND.....2 RENTED LAND.....3 SOMEONE ELSE'S LAND.....4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
715	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER.....1 FOR SOMEONE ELSE.....2 SELF-EMPLOYED.....3	
716	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR.....1 SEASONALLY/PART OF THE YEAR.....2 ONCE IN A WHILE.....3	→718 →719
717	During the last 12 months, how many months did you work?	NUMBER OF MONTHS..... [ ][ ]	
718	(In the months you worked,) How many days a week did you usually work?	NUMBER OF DAYS..... [ ]	→720
719	During the last 12 months, approximately how many days did you work?	NUMBER OF DAYS..... [ ][ ][ ]	
720	Do you earn cash for your work? PROBE: Do you make money for working?	YES.....1 NO.....2	 →723
721	How much do you usually earn for this work? PROBE: Is this by the day, by the week, or by the month?	PER HOUR.....1 [ ][ ][ ][ ][ ] PER DAY.....2 [ ][ ][ ][ ][ ] PER WEEK.....3 [ ][ ][ ][ ][ ] PER MONTH.....4 [ ][ ][ ][ ][ ] PER YEAR.....5 [ ][ ][ ][ ][ ] OTHER_____ 999996 (SPECIFY)	
722	CHECK 502: YES, CURRENTLY MARRIED YES, LIVING WITH A MAN [ ] → Who mainly decides how the money you earn will be used: you, your husband/partner, you and your husband/partner jointly, or someone else? NO, NOT IN UNION [ ] → Who mainly decides how the money you earn will be used: you, someone else, or you and someone else jointly?	RESPONDENT DECIDES.....1 HUSBAND/PARTNER DECIDES.....2 JOINTLY WITH HUSBAND/PARTNER....3 SOMEONE ELSE DECIDES.....4 JOINTLY WITH SOMEONE ELSE.....5	
723	Do you usually work at home or away from home?	HOME.....1 AWAY.....2	
724	CHECK 217 AND 218: IS A CHILD LIVING AT HOME WHO IS AGE 5 OR LESS? YES [ ] ↓ NO [ ]		→726
725	Who usually takes care of (NAME OF YOUNGEST CHILD AT HOME) while you are working?	RESPONDENT.....01 HUSBAND/PARTNER.....02 OLDER FEMALE CHILD.....03 OLDER MALE CHILD.....04 OTHER RELATIVES.....05 NEIGHBORS.....06 FRIENDS.....07 SERVANTS/HIRED HELP.....08 CHILD IS IN SCHOOL.....09 INSTITUTIONAL CHILDCARE.....10 HAS NOT WORKED SINCE LAST BIRTH.....95 OTHER_____ 96 (SPECIFY)	

SECTION 7B FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
726	Have you ever been circumcised?	YES.....1 NO.....2	 →730
727	What type of circumcision did you have? Did you have clitoridectomy, excision, or infibulation?	CLITORIDECTOMY.....1 EXCISION.....2 INFIBULATION.....3 OTHER_____6 (Specify)	
728	How old were you when you were circumcised?	AGE DAYS....1 [ ][ ] MONTHS..2 [ ][ ] YEARS...3 [ ][ ] DON'T KNOW.....998	
729	Who performed the circumcision?	DOCTOR.....1 TRAINED NURSE/MIDWIFE.....2 TRADITIONAL MIDWIFE.....3 CIRCUMCISION PRACTITIONER.....4 OTHER_____ 6 (Specify) DON'T KNOW.....8	
730	CHECK 214 AND 217 HAS AT LEAST ONE LIVING DAUGHTER [ ] HAS NO LIVING DAUGHTER [ ]		→735
731	Has (NAME OF ELDEST DAUGHTER) been circumcised?	YES.....1 NO.....2	 →736
732	How old was she when she was circumcised?	AGE DAYS....1 [ ][ ] MONTHS..2 [ ][ ] YEARS...3 [ ][ ] DON'T KNOW.....998	
733	Who performed the circumcision?	DOCTOR.....1 TRAINED NURSE/MIDWIFE.....2 TRADITIONAL MIDWIFE.....3 CIRCUMCISION PRACTITIONER.....4 OTHER_____ 6 (Specify) DON'T KNOW.....8	
734	Did any one object to your eldest daughter being circumcised? Any one else? RECORD ALL PERSONS MENTIONED	RESPONDENT.....A RESPONDENT'S HUSBAND.....B RESPONDENT'S MOTHER.....C RESPONDENT'S MOTHER-IN-LAW.....D OTHER RELATIVE OF RESPONDENT....E OTHER RELATIVE OF HUSBAND.....F OTHER_____X (Specify) NO ONE .....Y	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
735	CHECK 515: HAD SEX ☐ NEVER HAD SEX ☐		→739
736	CHECK 726: CIRCUMCISED ☐ NOT CIRCUMCISED ☐		→739
737	Did you have any health problems or other complications during sexual relations or delivery because of your circumcision? IF YES, PROBE: Complications during sexual relations or delivery?	YES, DURING SEXUAL RELATIONS....1 YES, DURING DELIVERY.....2 YES, DURING BOTH.....3 NO.....4	→739
738	What did you do in case of health problems and complications during sexual relation and delivery?	WENT TO HEALTH INSTITUTION.....1 WENT TO TRADITIONAL HEALER.....2 NOTHING.....3	
739	Do you think female circumcision should be continued, or should it be discontinued?	CONTINUED.....1 DISCONTINUED.....2 DON'T KNOW.....8	→742 →743
740	What type of female circumcision do you think should be continued: clitoridectomy, excision, or infibulation?	CLITORIDECTOMY.....1 EXCISION.....2 INFIBULATION.....3 OTHER_____6 (Specify)	
741	Why do you think female circumcision should be continued? RECORD ALL REASONS MENTIONED	GOOD TRADITION.....A CUSTOM AND TRADITION.....B RELIGIOUS DEMAND.....C CLEANLINESS.....D BETTER MARRIAGE PROSPECTS.....E GREATER PLEASURE OF HUSBAND.....F PRESERVATION OF VIRGINITY/ PREVENTION OF IMMORALITY.....G OTHER_____X (Specify) DON'T KNOW.....Z	→743
742	Why do you think female circumcision should be discontinued? Any other reasons? RECORD ALL REASONS MENTIONED	BAD TRADITION.....A AGAINST RELIGION.....B MEDICAL COMPLICATION.....C PAINFUL PERSONAL EXPERIENCE.....D AGAINST DIGNITY OF WOMEN.....E PREVENTS SEXUAL SATISFACTION....F OTHER_____X (Specify) DON'T KNOW.....Z	
743	CHECK 502: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ NO, NOT IN UNION ☐		→801
744	Does your husband/partner think female circumcision should be continued or discontinued?	CONTINUED.....1 DISCONTINUED.....2 DON'T KNOW.....8	
745	Has there been any activities against female circumcision arranged in this area?	YES.....1 NO.....2 DON'T KNOW.....3	→801
746	Please describe the activities.	DESCRIPTION OF THE ACTIVITIES _____ _____	

SECTION 8A. AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Have you heard about an illness called AIDS?	YES.....1 NO.....2	 → M801
802	From which sources of information have you learned most about AIDS? Any other sources? RECORD ALL MENTIONED	RADIO.....A TV.....B NEWSPAPERS/MAGAZINES.....C PAMPHLETS/POSTERS.....D HEALTH WORKERS.....E MOSQUES/CHURCHES.....F SCHOOLS/TEACHERS.....G COMMUNITY MEETINGS.....H FRIENDS/RELATIVES.....I WORK PLACE.....J OTHER....._____X (SPECIFY)	
803	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES.....1 NO.....2 DON'T KNOW.....8	 → 807
804	What can a person do? Any other ways? RECORD ALL MENTIONED	ABSTAIN FROM SEX.....B USE CONDOMS.....C AVOID MULTIPLE SEX PARTNERS.....D AVOID SEX WITH PROSTITUTES.....E AVOID SEX WITH HOMOSEXUALS.....F AVOID BLOOD TRANSFUSIONS.....G AVOID INJECTIONS.....H AVOID KISSING.....I AVOID MOSQUITO BITES.....J SEEK PROTECTION FROM FROM TRADITIONAL HEALER.....K OTHER_____W (SPECIFY) OTHER_____X (SPECIFY) DON'T KNOW.....Z	
807	Is it possible for a healthy-looking person to have the AIDS virus?	YES.....1 NO.....2 DON'T KNOW.....8	
808	Do you think that persons with AIDS almost never die from the disease, sometimes die, or almost always die from the disease?	ALMOST NEVER.....1 SOMETIMES.....2 ALMOST ALWAYS.....3 DON'T KNOW.....8	
809	Do you think your chances of getting AIDS are small, moderate, great, or no risk at all?	SMALL.....1 MODERATE.....2 GREAT.....3 NO RISK AT ALL.....4 HAS AIDS.....5	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
810	Since you heard of AIDS, have you changed your behavior to prevent getting AIDS? IF YES, what did you do? Anything else? RECORD ALL MENTIONED	DIDN'T START SEX.....A STOPPED ALL SEX.....B STARTED USING CONDOMS.....C RESTRICTED SEX TO ONE PARTNER...D REDUCED NUMBER OF PARTNERS.....E ASK SPOUSE TO BE FAITHFUL.....F NO MORE HOMOSEXUAL CONTACTS.....G STOPPED INJECTIONS.....I OTHER_____W (SPECIFY) OTHER_____X (SPECIFY) NO BEHAVIOR CHANGE.....Y DON'T KNOW.....Z	

SECTION 8B. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M801	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER..... [ ][ ]	
M802	CHECK M801: TWO OR MORE BIRTHS [ ]	ONLY ONE BIRTH (RESPONDENT ONLY) [ ]	→M816
M803	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS..... [ ][ ]	

	[1]	[2]	[3]	[4]	[5]	[6]
M804 What was the name given to your oldest (next oldest) brother or sister?	----------	----------	----------	----------	----------	----------
M805 Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
M806 Is (NAME) still alive?	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [2]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [3]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [4]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [5]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [6]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [7]
M807 How old is (NAME)?	GO TO [2]	GO TO [3]	GO TO [4]	GO TO [5]	GO TO [6]	GO TO [7]
M808 In what year did (NAME) die?	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98
M809 How many years ago did (NAME) die?						
M810 How old was (NAME) when she/he died?	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [2]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [3]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [4]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [5]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [6]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [7]
M811 Was (NAME) pregnant when she died?	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2
M812 Did (NAME) die during childbirth?	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2
M813 Oid (NAME) die within two months after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815
M814 Was her death due to complications of pregnancy or childbirth?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
M815 How many children did (NAME) give birth to during her lifetime?	GO TO [2]	GO TO [3]	GO TO [4]	GO TO [5]	GO TO [6]	GO TO [7]

IF NO MORE BROTHERS OR SISTERS, GO TO M816

M804 What was the name given to (next oldest) brother or sister?	[7] ----------	[8] ----------	[9] ----------	[10] ----------	[11] ----------	[12] ----------
M805 Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
M806 Is (NAME) still alive?	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [8]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [9]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [10]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [11]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [12]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [13]
M807 How old is (NAME)?	[ ][ ] GO TO [8]	[ ][ ] GO TO [9]	[ ][ ] GO TO [10]	[ ][ ] GO TO [11]	[ ][ ] GO TO [12]	[ ][ ] GO TO [13]
M808 In what year did (NAME) die?	19[ ][ ] GO TO M810 DK.....98	19[ ][ ] GO TO M810 DK.....98	19[ ][ ] GO TO M810 DK.....98	19[ ][ ] GO TO M810 DK.....98	19[ ][ ] GO TO M810 DK.....98	19[ ][ ] GO TO M810 DK.....98
M809 How many years ago did (NAME) die?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
M810 How old was (NAME) when she/he died?	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [9]	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [10]	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [11]	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [12]	[ ][ ] IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [13]
M811 Was (NAME) pregnant when she died?	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2
M812 Did (NAME) die during childbirth?	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2
M813 Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815
M814 Was her death due to complications of pregnancy or childbirth?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
M815 How many children did (NAME) give birth to during her lifetime?	[ ][ ] GO TO [8]	[ ][ ] GO TO [9]	[ ][ ] GO TO [10]	[ ][ ] GO TO [11]	[ ][ ] GO TO [12]	[ ][ ] GO TO [13]

IF NO MORE BROTHERS OR SISTERS, GO TO M816

M816	RECORD THE TIME.	HOUR..... [ ][ ] MINUTES..... [ ][ ]

SECTION 9. HEIGHT AND WEIGHT

901	CHECK 215:	ONE OR MORE BIRTHS SINCE JAN. 1992 ☐	NO BIRTHS SINCE JAN. 1992 ☐ → END

IN 902 (COLUMNS 2-4) RECORD THE LINE NUMBER FOR EACH CHILD BORN SINCE JANUARY 1992 AND STILL ALIVE. IN 903 AND 904 RECORD THE NAME AND BIRTH DATE FOR THE RESPONDENT AND FOR ALL LIVING CHILDREN BORN SINCE JANUARY 1992. IN 906 AND 908 RECORD HEIGHT AND WEIGHT OF THE RESPONDENT AND THE LIVING CHILDREN. (NOTE: ALL RESPONDENTS WITH ONE OR MORE BIRTHS SINCE JANUARY 1992 SHOULD BE WEIGHED AND MEASURED EVEN IF ALL OF THE CHILDREN HAVE DIED. IF THERE ARE MORE THAN 3 LIVING CHILDREN BORN SINCE JANUARY 1992, USE ADDITIONAL FORMS).

	1 RESPONDENT	2 YOUNGEST LIVING CHILD	3 NEXT-TO-YOUNGEST LIVING CHILD	4 SECOND-TO-YOUNGEST LIVING CHILD
902 LINE NO. FROM Q.212		☐☐	☐☐	☐☐
903 NAME FROM Q.212 FOR CHILDREN		(NAME) _____	(NAME) _____	(NAME) _____
904 DATE OF BIRTH FROM Q.215, AND ASK FOR DAY OF BIRTH		DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐
905 BCG SCAR ON TOP OF LEFT SHOULDER		SCAR SEEN.....1 NO SCAR.....2	SCAR SEEN.....1 NO SCAR.....2	SCAR SEEN.....1 NO SCAR.....2
906 HEIGHT (in centimeters)	☐☐☐.☐	☐☐☐.☐	☐☐☐.☐	☐☐☐.☐
907 WAS LENGTH/HEIGHT OF CHILD MEASURED LYING DOWN OR STANDING UP?		LYING.....1 STANDING.....2	LYING.....1 STANDING.....2	LYING.....1 STANDING.....2
908 WEIGHT (in kilograms)	☐☐☐.☐	0☐☐.☐	0☐☐.☐	0☐☐.☐
909 DATE WEIGHED AND MEASURED	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐
910 RESULT	MEASURED.....1 NOT PRESENT....3 REFUSED.....4 OTHER.....6 _____ (SPECIFY)	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 _____ (SPECIFY)	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 _____ (SPECIFY)	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 _____ (SPECIFY)

911 NAME OF MEASURER: _____ ☐☐ NAME OF ASSISTANT: _____ ☐☐

INTERVIEWER'S OBSERVATIONS

To be filled in after completing interview

Comments about Respondent: _____

_____

_____

Comments on Specific Questions: _____

_____

_____

Any Other Comments: _____

_____

_____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

Name of Editor: _____ Date: _____

THE STATE OF ERITREA
OFFICE OF THE PRESIDENT
NATIONAL STATISTICS OFFICE

ERITREA DEMOGRAPHIC AND HEALTH SURVEY
MEN'S QUESTIONNAIRE

IDENTIFICATION	
AWRAJA	
WEREDA	
VILLAGE/TOWN NAME _____	
ASMARA=1, OTHER TOWN=2, RURAL=3.....	
CLUSTER NUMBER	
BUILDING NUMBER _____	
HOUSEHOLD NUMBER	
NAME OF HOUSEHOLD HEAD _____	
NAME AND LINE NUMBER OF MAN.....	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR
TEAM				TEAM
INTERVIEWER'S NAME				NAME
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NO. OF VISITS
TIME				

*RESULT CODES: 1 COMPLETED 3 POSTPONED 5 PARTLY COMPLETED 7 OTHER _____ (specify)
2 NOT AT HOME 4 REFUSED 6 INCAPACITATED

LANGUAGE:** QUESTIONNAIRE ☐☐ LANGUAGE OF INTERVIEW ☐☐ NATIVE LANGUAGE RESPONDENT ☐☐

**LANGUAGE CODES: 01=AFAR 02=BILEN 03=HEDARIB (TOBEDAWI) 04=KUNAMA 05=NARA
06=RASHAIDA (ARABIC) 07=SAHO 08=TIGRE 09=TIGRIGNA 10=OTHER

TRANSLATOR USED (NOT AT ALL=1, SOMETIMES=2, ALL THE TIME=3)..... ☐

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ ☐☐	NAME _____ ☐☐	☐☐	☐☐
DATE _____	DATE _____		

ALL INFORMATION COLLECTED IS CONFIDENTIAL AND IS ONLY FOR STATISTICAL USE.

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR..... [ ][ ] MINUTES..... [ ][ ]	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in a village?	ASMARA.....1 TOWN.....2 RURAL.....3	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	YEARS..... [ ][ ] ALWAYS.....95 VISITOR.....96	 →105
104	Just before you moved here, did you live in a city, in a town, or in a village?	CITY.....1 TOWN.....2 VILLAGE.....3	
105	In what month and year were you born?	MONTH..... [ ][ ] DOES NOT KNOW MONTH.....98 YEAR..... [ ][ ] DOES NOT KNOW YEAR.....98	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... [ ][ ]	
107	Have you ever attended school? IF YES, ASK: Was it under the old or the new system?	YES, OLD SYSTEM.....1 YES, NEW SYSTEM.....2 NO.....3	 →111
108	What is the highest level of school you attended: primary, middle, secondary or higher?	PRIMARY.....1 MIDDLE.....2 SECONDARY.....3 HIGHER.....4	
109	What is the highest grade you completed at that level?	GRADE..... [ ][ ]	
110	CHECK 108: PRIMARY [ ] ↓ MIDDLE SCHOOL OR HIGHER [ ]		→112
111	Can you read and understand a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	 →113
112	Do you usually read a newspaper or magazine at least once a week?	YES.....1 NO.....2	
113	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	
114	Do you usually watch television at least once a week?	YES.....1 NO.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
115	Are you currently working?	YES.....1 NO.....2	→117
116	Have you done any work in the last 12 months?	YES.....1 NO.....2	→124
117	What is your occupation, that is, what kind of work do you mainly do?	_____ [ ][ ] _____ _____	
118	CHECK 117: WORKS IN AGRICULTURE [ ] ↓ DOES NOT WORK IN AGRICULTURE [ ]		→120
119	Do you work mainly on your own land or on family land, or do you rent land, or work on someone else's land?	OWN LAND.....1 FAMILY LAND.....2 RENTED LAND.....3 SOMEONE ELSE'S LAND.....4	
120	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER.....1 FOR SOMEONE ELSE.....2 SELF-EMPLOYED.....3	
121	Do you usually work at this job throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR.....1 SEASONALLY/PART OF THE YEAR.....2 ONCE IN A WHILE.....3	→123
122	During the last 12 months, how many months did you work at this job?	NUMBER OF MONTHS..... [ ][ ]	
123	How much do you earn for this work? PROBE: Is this by the hour, by the day, by the week, by the month or by the year?	PER HOUR.....1 [ ][ ][ ][ ][ ] PER DAY.....2 [ ][ ][ ][ ][ ] PER WEEK.....3 [ ][ ][ ][ ][ ] PER MONTH.....4 [ ][ ][ ][ ][ ] PER YEAR.....5 [ ][ ][ ][ ][ ] OTHER_____ 999996 (SPECIFY)	
124	What is your religion?	ORTHODOX.....1 CATHOLIC.....2 PROTESTANT.....3 MUSLIM.....4 TRADITIONAL BELIEVER.....5 OTHER_____ 6 (SPECIFY)	
125	What is your ethnic group?	AFAR.....01 BILEN.....02 HEDARIB.....03 KUNAMA.....04 NARA.....05 RASHAIDA.....06 SAHO.....07 TIGRE.....08 TIGRIGNA.....09 OTHER_____ 96 (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about your children. I am interested only in the children that are biologically yours. Have you ever had children?	YES.....1 NO.....2	→206
202	Do you have any sons or daughters who are now living with you?	YES.....1 NO.....2	→204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME..... [ ][ ] DAUGHTERS AT HOME..... [ ][ ]	
204	Do you have any sons or daughters who are alive but do not live with you?	YES.....1 NO.....2	→206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE..... [ ][ ] DAUGHTERS ELSEWHERE..... [ ][ ]	
206	Have you ever had a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but survived only a few hours or days?	YES.....1 NO.....2	→208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD..... [ ][ ] GIRLS DEAD..... [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL..... [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL ____ children during your life. Is that correct? YES [ ] NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: HAS CHILDREN [ ] HAS NO CHILDREN [ ]		→301
211	When you were expecting your last born child, did you want to have the child then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	

SECTION 3. CONTRACEPTION

Now I would like to talk about family planning---the various ways or methods that a couple can use to delay or avoid a pregnancy.

CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
THEN PROCEED DOWN COLUMN 302, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY.
CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED.
THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 301 OR 302, ASK 303.

301 Which ways or methods have you heard about?	SPONTANEOUS YES	302 Have you ever heard of (METHOD)? PROBED YES	NO	303 Have you ever used (METHOD)?
01 PILL Women can take a pill every day.	1	2	3	YES.....1 NO, DOES NOT KNOW.....2
02 IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	1	2	3	YES.....1 NO, DOES NOT KNOW.....2
03 INJECTIONS Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	1	2	3	YES.....1 NO, DOES NOT KNOW.....2
05 DIAPHRAGM, FOAM, JELLY Women can place a sponge, suppository, diaphragm, jelly, or cream inside themselves before intercourse.	1	2	3	YES.....1 NO, DOES NOT KNOW.....2
06 CONDOM Men can use a rubber sheath during sexual intercourse.	1	2	3	YES.....1 NO.....2
07 FEMALE STERILIZATION Women can have an operation to avoid having any more children.	1	2	3	Have you ever had a partner who had an operation to avoid having children? YES.....1 NO, DOES NOT KNOW.....2
08 MALE STERILIZATION Men can have an operation to avoid having any more children.	1	2	3	Have you ever had an operation to avoid having any more children? YES.....1 NO.....2
09 RHYTHM, PERIODIC ABSTINENCE Every month that a woman is sexually active she can avoid having sexual intercourse on the days of the month she is most likely to get pregnant.	1	2	3	YES.....1 NO, DOES NOT KNOW.....2
10 WITHDRAWAL Men can be careful and pull out before climax.	1	2	3	YES.....1 NO.....2
11 Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	1 _____ (SPECIFY) _____ (SPECIFY)		3	YES.....1 NO.....2 YES.....1 NO.....2

304 CHECK 303:

NOT A SINGLE "YES" (NEVER USED) ☐ ↓

AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 308

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
305	Have you or any of your partners ever used anything or tried in any way to delay or avoid pregnancy?	YES.....1 NO.....2	→310
307	What have you used or done? CORRECT 303 AND 304 (AND 302 IF NECESSARY).		
308	Are you or your partner doing something or using a method to delay or avoid a pregnancy?	YES.....1 NO.....2	→310
309	Which method are you using?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 PERIODIC ABSTINENCE.....09 WITHDRAWAL.....10 OTHER_____ 96 (SPECIFY)	→401
310	What is the main reason you are not using a method of contraception to avoid pregnancy?	NOT MARRIED.....11 FERTILITY-RELATED REASONS NOT HAVING SEX.....21 INFREQUENT SEX.....22 WIFE MENOPAUSAL/HYSTERECTOMY.23 WIFE SUBFECUND/INFECUND.....24 POSTPARTUM/BREASTFEEDING.....25 WANTS (MORE) CHILDREN.....26 OPPOSITION TO USE RESPONDENT OPPOSED.....31 WIFE/PARTNER OPPOSED.....32 OTHERS OPPOSED.....33 RELIGIOUS PROHIBITION.....34 LACK OF KNOWLEDGE KNOWS NO METHOD.....41 KNOWS NO SOURCE.....42 METHOD-RELATED REASONS HEALTH CONCERNS.....51 FEAR OF SIDE EFFECTS.....52 LACK OF ACCESS/TOO FAR.....53 COST TOO MUCH.....54 INCONVENIENT TO USE.....55 INTERFERES WITH BODY'S NORMAL PROCESSES.....56 UP TO THE WOMAN TO USE.....61 OTHER_____ 96 (SPECIFY) DOES NOT KNOW.....98	

SECTION 4. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living with a woman?	YES, CURRENTLY MARRIED.....1 YES, LIVING WITH A WOMAN.....2 NO, NOT IN UNION.....3	 →402A →404
402 402A	How many wives do you have? How many women are you living with as if you are married?	NUMBER OF WIVES..... [ ][ ]	
403	WRITE THE LINE NUMBERS FROM THE HOUSEHOLD QUESTIONNAIRE FOR HIS WIFE/WIVES. IF A WIFE DOES NOT LIVE IN THE HOUSEHOLD, WRITE '00'. THE NUMBER OF BOXES FILLED MUST EQUAL THE NUMBER OF WIVES.	[ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ] [ ][ ]	→407
404	Do you currently have a regular sexual partner, an occasional sexual partner or no sexual partner at all?	REGULAR SEXUAL PARTNER.....1 OCCASIONAL SEXUAL PARTNER.....2 NO SEXUAL PARTNER.....3	
405	Have you ever been married or lived with a woman?	YES, FORMERLY MARRIED.....1 YES, LIVED WITH A WOMAN.....2 NO.....3	 →407 →410F
406	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED.....1 DIVORCED.....2 SEPARATED.....3	
407	Have you been married or lived with a woman only once, or more than one?	ONCE.....1 MORE THAN ONCE.....2	
408	CHECK 407: MARRIED/LIVED WITH A WOMAN ONLY ONCE [ ] → In what month and year did you start living with your wife/woman? MARRIED/LIVED WITH A WOMAN MORE THAN ONCE [ ] → Now we will talk about your first wife/woman you lived with. In what month and year did you start living with her?	MONTH..... [ ][ ] DOES NOT KNOW MONTH.....98 YEAR..... [ ][ ] DOES NOT KNOW YEAR.....98	 →409A
409	How old were you when you started living with her?	AGE..... [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
409A	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A WOMAN ☐	NOT IN UNION ☐	→ 410F
410	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family planning issues. When was the last time you had sexual intercourse with (your wife/the woman you are living with)?	DAYS AGO.....1 ☐☐ WEEKS AGO.....2 ☐☐ MONTHS AGO.....3 ☐☐ YEARS AGO.....4 ☐☐	
410A	CHECK 301 AND 302: KNOWS CONDOM ☐ → The last time you had sex with (your wife/ the woman you are living with), did you use a condom? DOES NOT KNOW CONDOM ☐ → Some men use a condom, which means that they put a rubber sheath on their penis during sexual intercourse. The last time you had sex with (your wife/the woman you are living with) did you use a condom?	YES.....1 NO.....2 DK.....8	
410B	Have you had sex with anyone other than (your wife/ the woman you are living with) in the last 12 months?	YES.....1 NO.....2	→ 410J
410C	When was the last time you had sexual intercourse with someone other than (your wife/the woman you are living with)?	DAYS AGO.....1 ☐☐ WEEKS AGO.....2 ☐☐ MONTHS AGO.....3 ☐☐ YEARS AGO.....4 ☐☐	
410D	Did you used a condom that time?	YES.....1 NO.....2 DK.....8	
410E	In the last 12 months, how many different persons other than (your wife/the woman you are living with) have you had sex with?	NUMBER OF PERSONS..... ☐☐ DK.....98	→ 410J
410F	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family planning issues. When was the last time you had sexual intercourse (if ever)?	NEVER.....000 DAYS AGO.....1 ☐☐ WEEKS AGO.....2 ☐☐ MONTHS AGO.....3 ☐☐ YEARS AGO.....4 ☐☐	→ 501

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
410G	CHECK 301 AND 302: KNOWS CONDOM ☐ → The last time you had sex, did you use a condom? DOES NOT KNOW CONDOM ☐ → Some men use a condom, which means that they put a rubber sheath on their penis during sexual intercourse. The last time you had sex, did you use a condom?	YES.....1 NO.....2 DK.....8	
410H	CHECK 410F: LESS THAN 12 MONTHS SINCE LAST SEX ☐ ↓ 12 MONTHS OR LONGER SINCE LAST SEX ☐		→ 410J
410I	In the last 12 months, how many different persons have you had sex with?	NUMBER OF PERSONS..... ☐☐ DK.....98	
410J	CHECK 401: CURRENTLY MARRIED OR LIVING WITH A WOMAN ☐ → The last time you had sex, was it with your (wife/the woman you live with), a regular partner, an acquaintance, someone you paid for sex, or someone else? NOT CURRENTLY MARRIED AND NOT LIVING WITH A WOMAN ☐ → The last time you had sex, was it with a regular partner, an acquaintance, someone you paid for sex, or someone else?	WIFE/WOMAN LIVES WITH.....1 REGULAR PARTNER.....2 ACQUAINTANCE.....3 SOMEONE HE PAID FOR SEX.....4 SOMEONE ELSE.....5	
413	Do you know where you can get condoms?	YES.....1 NO.....2	→ 501
414	Where is the most convenient place to get condoms? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC HOSPITAL GOVERNMENT HOSPITAL.....11 GOVERNMENT HEALTH CENTER.....12 FAMILY PLANNING CLINIC.....13 MOBILE CLINIC.....14 FIELD WORKER.....15 OTHER PUBLIC_____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC.....21 PHARMACY.....22 PRIVATE DOCTOR.....23 MOBILE CLINIC.....24 FIELD WORKER.....25 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER PRIVATE SECTOR SHOP.....31 CHURCH.....32 FRIENDS/RELATIVES.....33 OTHER _____ 96 (SPECIFY)	
416	How old were you when you first had sexual intercourse?	AGE..... ☐☐	

SECTION 5A. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: NOT IN UNION ☐ ▼ CURRENTLY MARRIED OR LIVING WITH A WOMAN ☐		→503
502	CHECK 404: REGULAR SEXUAL PARTNER ☐ ▼ OCCASIONAL SEXUAL PARTNER ☐ ▼ NO SEXUAL PARTNER ☐		→505A
503	Is your wife (or one of your wives)/partner pregnant now?	YES.....1 NO.....2 UNSURE.....8	→505A
504	When she became pregnant, did you want her to become pregnant then, did you want her to wait until later, or did you not want this pregnancy at all?	THEN.....1 LATER.....2 NOT AT ALL.....3	→505B
505	A) WIFE/PARTNER NOT PREGNANT OR UNSURE OR NO WIFE/PARTNER ☐ ▼ Now I have some questions about the future. Would you like to have (a/another) child or would you prefer not to have any (more) children? B) WIFE/PARTNER PREGNANT ☐ ▼ Now I have some questions about the future. After the child your wife/partner is expecting, would you like to have another child or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD.....1 NO MORE/NONE.....2 SAYS WIFE CAN'T GET PREGNANT....3 SAYS HE CAN'T HAVE ONE ANY MORE.4 UNDECIDED/DOES NOT KNOW.....8	→507
506	CHECK 503: WIFE/PARTNER NOT PREGNANT OR UNSURE OR NO WIFE/PARTNER ☐ ▼ How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT ☐ ▼ After the child your wife/partner is expecting, how long would you like to wait before the birth of another child?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ SOON/NOW.....993 SAYS WIFE CAN'T GET PREGNANT..994 AFTER MARRIAGE.....995 OTHER_____ 996 (SPECIFY) DOES NOT KNOW.....998	
507	CHECK 308: USING A METHOD? NOT ASKED ☐ ▼ NOT CURRENTLY USING ☐ ▼ CURRENTLY USING ☐		→512
508	Do you think you will use a method to delay or avoid pregnancy within the next 12 months?	YES.....1 NO.....2 DOES NOT KNOW.....8	→510
509	Do you think you will use a method at any time in the future?	YES.....1 NO.....2 DOES NOT KNOW.....8	→511

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
510	Which method would you or your partner prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 OTHER_____ 96 (SPECIFY) UNSURE.....98	→512
511	What is the main reason that you think you will never use a method?	FERTILITY-RELATED REASONS INFREQUENT SEX.....22 WIFE MENOPAUSAL/HYSTERECTOMY..23 WIFE SUBFECUND/INFECUND.....24 WANTS MORE CHILDREN.....26 OPPOSITION TO USE RESPONDENT OPPOSED.....31 WIFE OPPOSED.....32 OTHERS OPPOSED.....33 RELIGIOUS PROHIBITION.....34 LACK OF KNOWLEDGE KNOWS NO METHOD.....41 KNOWS NO SOURCE.....42 METHOD-RELATED REASONS HEALTH CONCERNS.....51 FEAR OF SIDE EFFECTS.....52 LACK OF ACCESS/TOO FAR.....53 COST TOO MUCH.....54 INCONVENIENT TO USE.....55 INTERFERES WITH BODY'S NORMAL PROCESSES.....56 OTHER_____ 96 (SPECIFY) DOES NOT KNOW.....98	
512	CHECK 202 AND 204: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY)	→514
513	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter?	BOYS NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY) GIRLS NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY) EITHER NUMBER..... ☐☐ OTHER_____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
514	Would you say that you approve or disapprove of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 NO OPINION.....3	
515	Is it acceptable or not acceptable to you for information on family planning to be provided: On the radio? On the television?	ACCEPT-ABLE / NOT ACCEPT-ABLE / DOES NOT KNOW RADIO.....1 2 8 TELEVISION.....1 2 8	
516	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine? From a poster? From leaflets or brochures?	YES NO RADIO.....1 2 TELEVISION.....1 2 NEWSPAPER OR MAGAZINE.....1 2 POSTER.....1 2 LEAFLETS OR BROCHURES.....1 2	
518	In the last few months have you discussed about family planning with your friends, neighbors, or relatives?	YES.....1 NO.....2	→520
519	With whom? Anyone else? RECORD ALL MENTIONED.	WIFE/PARTNER.....A MOTHER.....B FATHER.....C SISTER(S).....D BROTHER(S).....E DAUGHTER.....F MOTHER-IN-LAW.....G FRIENDS/NEIGHBORS.....H OTHER_____ X (SPECIFY)	
520	CHECK 401: CURRENTLY MARRIED ☐ LIVING WITH A WOMAN ☐ NOT IN UNION ☐		→524
521	Spouses do not always agree on everything. Now I want to ask you about views on family planning of your wife/the woman you live/with whom you spend most time. Does she approve or disapprove of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DOES NOT KNOW.....8	
522	How often have you talked to her about family planning in the past year?	NEVER.....1 ONCE OR TWICE.....2 MORE OFTEN.....3	
523	Do you think she wants the same number of children that you want, or does she want more or fewer than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DOES NOT KNOW.....8	

SECTION 5B. FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
524	Do you think female circumcision should be continued, or should it be discontinued?	CONTINUED.....1 DISCONTINUED.....2 DK.....8	 →527 →528
525	What type of female circumcision do you think should be continued: clitoridectomy, excision, or infibulation?	CLITORIDECTOMY.....1 EXCISION.....2 INFIBULATION.....3 OTHER_____6 (Specify)	
526	Why do you think female circumcision should be continued?	GOOD TRADITION.....A CUSTOM AND TRADITION.....B RELIGIOUS DEMAND.....C CLEANLINESS.....D BETTER MARRIAGE PROSPECTS.....E GREATER PLEASURE OF HUSBAND.....F PRESERVATION OF VIRGINITY/ PREVENTION OF IMMORALITY.....G OTHER_____X (Specify) DK.....Z	→528
527	Why do you think female circumcision should be discontinued? Any other reasons? RECORD ALL REASONS MENTIONED	BAD TRADITION.....A AGAINST RELIGION.....B MEDICAL COMPLICATION.....C PAINFUL PERSONAL EXPERIENCE.....D AGAINST DIGNITY OF WOMEN.....E PREVENTS SEXUAL SATISFACTION....F OTHER_____X (Specify) DK.....Z	
528	CHECK 401: CURRENTLY MARRIED/ LIVING WITH A WOMAN ☐ ↓ NO, NOT IN UNION ☐		→601A
529	Does your wife/partner think female circumcision should be continued or discontinued?	CONTINUED.....1 DISCONTINUED.....2 DK.....8	

SECTION 6. AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601A	Have you heard about diseases that can be transmitted through sex?	YES.....1 NO.....2	→ 601D
601B	Which diseases do you know? RECORD ALL RESPONSES	SYPHILIS.....A GONORRHEA.....B AIDS.....C GENITAL WARTS / CONDYLOMATA.....D OTHER_____ W (SPECIFY) OTHER_____ X (SPECIFY) DK.....Z	
601C	CHECK 410 AND 410F: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NEVER HAD SEXUAL INTERCOURSE ☐		→ 601N
601D	During the last twelve months, did you have any of these diseases?	YES.....1 NO.....2 DK.....8	→ 601N
601E	Which of the diseases did you have? RECORD ALL RESPONSES	SYPHILIS.....A GONORRHEA.....B AIDS.....C GENITAL WARTS / CONDYLOMATA.....D OTHER_____ W (SPECIFY) OTHER_____ X (SPECIFY) DON'T KNOW.....Z	
601F	During the last twelve months, did you have a sore or ulcer on your penis?	YES.....1 NO.....2 DK.....8	
601G	During the last twelve months, did you have a discharge from your penis?	YES.....1 NO.....2 DK.....8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601H	CHECK 601E, 601F AND 601G: HAD ONE OR MORE DISEASES ☐	NONE OF THE DISEASES ☐	→ 601N
601I	The last time you had (DISEASE FROM 601E/DISCHARGE/SORE) did you seek advice or treatment?	YES.....1 NO.....2	→ 601K
601J	Where did you seek advice or treatment? Any other place or person? RECORD ALL MENTIONED	PUBLIC SECTOR GOVT. HOSPITAL.....A HEALTH CENTER.....B FP CLINIC.....C MOBILE CLINIC.....D DISPENSARY.....E OTHER PUBLIC SECTOR.....F MEDICAL PRIVATE SECTOR PRIVATE HOSPITAL/CLINIC.....G PHARMACY.....H PRIVATE DOCTOR.....I MOBILE CLINIC.....J OTHER MED. PRIVATE SECTOR.....K OTHER PRIVATE SECTOR SHOP.....L RELATIVES/FRIENDS.....M TRADITIONAL HEALER.....N OTHER_____ X (SPECIFY) DK.....Z	
601K	When you had (DISEASE(S) FROM 601E/DISCHARGE/SORE) did you inform your partner(s)?	YES.....1 NO.....2	
601L	When you had (DISEASE(S) FROM 601E/DISCHARGE/SORE) did you do something not to infect your partner(s)?	YES.....1 NO.....2 PARTNER ALREADY INFECTED.....3	→ 601N
601M	What did you do not to infect? RECORD ALL MENTIONED	NO SEXUAL INTERCOURSE.....A USED CONDOMS.....B TOOK MEDICINES.....C OTHER_____ X (SPECIFY)	
601N	CHECK 601B: DID NOT MENTION 'AIDS' ☐	MENTIONED 'AIDS' ☐	→ 602
601O	Have you ever heard of an illness called AIDS?	YES.....1 NO.....2	→ 611C
602	From which sources of information have you learned most about AIDS? Any other sources? RECORD ALL MENTIONED	RADIO.....A TV.....B NEWSPAPERS/MAGAZINES.....C PAMPHLETS/POSTERS.....D HEALTH WORKERS.....E MOSQUES/CHURCHES.....F SCHOOLS/TEACHERS.....G COMMUNITY MEETINGS.....H FRIENDS/RELATIVES.....I WORK PLACE.....J OTHER.....X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
602B	How can a person get AIDS? Any other ways? RECORD ALL MENTIONED	SEXUAL INTERCOURSE.....A SEXUAL INTERCOURSE WITH MULTIPLE PARTNERS.....B SEX WITH PROSTITUTES.....C NOT USING CONDOM.....D HOMOSEXUAL CONTACT.....E BLOOD TRANSFUSION.....F INJECTIONS.....G KISSING.....H MOSQUITO BITES.....I OTHER_____W (SPECIFY) OTHER_____X (SPECIFY) DK.....Z	
603	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES.....1 NO.....2 DK.....8	607
604	What can a person do? Any other ways? RECORD ALL MENTIONED	ABSTAIN FROM SEX.....B USE CONDOMS.....C AVOID MULTIPLE SEX PARTNERS.....D AVOID SEX WITH PROSTITUTES.....E AVOID SEX WITH HOMOSEXUALS.....F AVOID BLOOD TRANSFUSIONS.....G AVOID INJECTIONS.....H AVOID KISSING.....I AVOID MOSQUITO BITES.....J SEEK PROTECTION FROM FROM TRADITIONAL HEALER.....K OTHER_____W (SPECIFY) OTHER_____X (SPECIFY) DK.....Z	
607	Is it possible for a healthy-looking person to have the AIDS virus?	YES.....1 NO.....2 DK.....8	
608	Do you think that persons with AIDS almost never die from the disease, sometimes die, or almost always die?	ALMOST NEVER.....1 SOMETIMES.....2 ALMOST ALWAYS.....3	
608A	Can AIDS be cured?	YES.....1 NO.....2 DK.....8	
608B	Can AIDS be transmitted from mother to child?	YES.....1 NO.....2 DK.....8	
608C	Do you personally know someone who has AIDS or has died of AIDS?	YES.....1 NO.....2 DK.....8	

NO.	QUESTIONS AND FILTERS	CODES	SKIP
609	Do you think your chances of getting AIDS are small, moderate, great, or no risk at all?	SMALL.....1 MODERATE.....2 GREAT.....3 NO RISK AT ALL.....4 HAS AIDS.....5	 609C 611A
609B	Why do you think that you have (NO RISK/A SMALL CHANCE) of getting AIDS? Any other reasons? RECORD ALL MENTIONED	ABSTAIN FROM SEX.....B USE CONDOMS.....C HAVE ONLY ONE SEX PARTNER.....D LIMITED NUMBER OF SEX PARTNERS..E AVOID SEX WITH PROSTITUTES.....F SPOUSE HAS NO OTHER PARTNER.....G NO HOMOSEXUAL CONTACT.....H NO BLOOD TRANSFUSIONS.....I NO INJECTIONS.....J OTHER_____X (SPECIFY)	611A
609C	Why do you think that you have a (MODERATE/GREAT) chance of getting AIDS? Any other reasons? RECORD ALL MENTIONED	DO NOT USE CONDOMS.....C MORE THAN ONE SEX PARTNER.....D MANY SEX PARTNERS.....E SEX WITH PROSTITUTES.....F SPOUSE HAS OTHER PARTNER(S).....G HOMOSEXUAL CONTACT.....H HAD BLOOD TRANSFUSION.....I HAD INJECTIONS.....J OTHER_____X (SPECIFY)	
611A	Since you heard of AIDS, have you changed your behavior to prevent getting AIDS? IF YES, what did you do? Anything else? RECORD ALL MENTIONED	DIDN'T START SEX.....A STOPPED ALL SEX.....B STARTED USING CONDOMS.....C RESTRICTED SEX TO ONE PARTNER...D REDUCED NUMBER OF PARTNERS.....E AVOID SEX WITH PROSTITUTES.....F ASK SPOUSE TO BE FAITHFUL.....G NO MORE HOMOSEXUAL CONTACTS.....H STOPPED INJECTIONS.....J OTHER_____W (SPECIFY) OTHER_____X (SPECIFY) NO BEHAVIOR CHANGE.....Y	611C
611B	Has your knowledge of AIDS influenced or changed your decisions about having sex or your sexual behavior? IF YES, In what way? RECORD ALL MENTIONED	DIDN'T START SEX.....A STOPPED ALL SEX.....B STARTED USING CONDOMS.....C RESTRICTED SEX TO ONE PARTNER...D REDUCED NUMBER OF PARTNERS.....E AVOID SEX WITH PROSTITUTES.....F NO MORE HOMOSEXUAL CONTACTS.....G OTHER_____X (SPECIFY) NO CHANGE IN SEXUAL BEHAVIOR....Y	
611C	Some people use a condom during sexual intercourse to avoid getting AIDS or other sexually transmitted diseases? Have you ever heard of this?	YES.....1 NO.....2	 611F

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
611D	CHECK 410 AND 410F: HAS HAD SEXUAL INTERCOURSE ☐	HAS NEVER HAD SEXUAL INTERCOURSE ☐	→ M801
611E	We may already have talked about this. Have you ever used a condom during sex to avoid getting or transmitting diseases, such as AIDS?	YES.....1 NO.....2	
611F	Have you given or received money, gifts or favors in return for sex at any time in the last 12 months?	YES.....1 NO.....2	

SECTION 8. MATERNAL MORTALITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
M801	Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. How many children did your mother give birth to, including you?	NUMBER OF BIRTHS TO NATURAL MOTHER..... [ ][ ]	
M802	CHECK M801: TWO OR MORE BIRTHS [ ]	ONLY ONE BIRTH (RESPONDENT ONLY) [ ]	M816
M803	How many of these births did your mother have before you were born?	NUMBER OF PRECEDING BIRTHS..... [ ][ ]	

	[1]	[2]	[3]	[4]	[5]	[6]
M804 What was the name given to your oldest (next oldest) brother or sister?	----------	----------	----------	----------	----------	----------
M805 Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
M806 Is (NAME) still alive?	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [2]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [3]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [4]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [5]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [6]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [7]
M807 How old is (NAME)?	GO TO [2]	GO TO [3]	GO TO [4]	GO TO [5]	GO TO [6]	GO TO [7]
M808 In what year did (NAME) die?	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98
M809 How many years ago did (NAME) die?						
M810 How old was (NAME) when she/he died?	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [2]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [3]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [4]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [5]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [6]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [7]
M811 Was (NAME) pregnant when she died?	YES.....1 GO TOM814 NO.....2	YES.....1 GO TOM814 NO.....2	YES.....1 GO TOM814 NO.....2	YES.....1 GO TOM814 NO.....2	YES.....1 GO TOM814 NO.....2	YES.....1 GO TOM814 NO.....2
M812 Did (NAME) die during childbirth?	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2
M813 Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815
M814 Was her death due to complications of pregnancy or childbirth?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
M815 How many children did (NAME) give birth to during her lifetime?	GO TO [2]	GO TO [3]	GO TO [4]	GO TO [5]	GO TO [6]	GO TO [7]

IF NO MORE BROTHERS OR SISTERS, GO TO M816

M804 What was the name given to (next oldest) brother or sister?	[7] ----------	[8] ----------	[9] ----------	[10] ----------	[11] ----------	[12] ----------
M805 Is (NAME) male or female?	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2	MALE.....1 FEMALE.....2
M806 Is (NAME) still alive?	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [8]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [9]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [10]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [11]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [12]	YES.....1 NO.....2 GO TO M808 DK.....8 GO TO [13]
M807 How old is (NAME)?	GO TO [8]	GO TO [9]	GO TO [10]	GO TO [11]	GO TO [12]	GO TO [13]
M808 In what year did (NAME) die?	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98	19 GO TO M810 DK.....98
M809 How many years ago did (NAME) die?						
M810 How old was (NAME) when she/he died?	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [8]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [9]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [10]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [11]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [12]	IF MALE OR DIED BEFORE 12 YEARS OF AGE GO TO [13]
M811 Was (NAME) pregnant when she died?	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2	YES.....1 GO TO M814 NO.....2
M812 Did (NAME) die during childbirth?	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2	YES.....1 GO TO M815 NO.....2
M813 Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815	YES.....1 NO.....2 GO TO M815
M814 Was her death due to complications of pregnancy or childbirth?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
M815 How many children did (NAME) give birth to during her lifetime?	GO TO [8]	GO TO [9]	GO TO [10]	GO TO [11]	GO TO [12]	GO TO [13]

IF NO MORE BROTHERS OR SISTERS, GO TO M816

M816	RECORD THE TIME.	HOUR..... MINUTES.....

INTERVIEWER'S OBSERVATIONS

To be filled in after completing interview

Comments about Respondent: _____

_____

_____

Comments on Specific Questions: _____

_____

_____

Any Other Comments: _____

_____

_____

SUPERVISOR'S OBSERVATIONS

_____

_____

_____

Name of Supervisor: _____ Date: _____

EDITOR'S OBSERVATIONS

_____

_____

_____

Name of Editor: _____ Date: _____

THE STATE OF ERITREA
OFFICE OF THE PRESIDENT
NATIONAL STATISTICS OFFICE

ERITREA DEMOGRAPHIC AND HEALTH SURVEY
SERVICE AVAILABILITY QUESTIONNAIRE

IDENTIFICATION

AWRAJA _____

WEREDA _____

VILLAGE/TOWN NAME _____

ASHARA=1, OTHER TOWN=2, RURAL=3.....

CLUSTER NUMBER .....

DATE OF VISIT _____ DAY

MONTH

YEAR

INTERVIEWER'S NAME _____ NAME

*RESULT

RESULT CODE* 1= COMPLETE, 2= PARTIALLY COMPLETE, 3= NOT COMPLETED

CLUSTER INFORMANTS

	NAME	POSITION/TITLE/OCCUPATION
1.		
2.		
3.		
4.		
5.		
6.		
7.		

TOTAL NUMBER OF INFORMANTS IN THE CLUSTER.....

TIME STARTED _____ TIME ENDED _____

SECTION 1. COMMUNITY CHARACTERISTICS

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
	QUESTIONS 101 IS TO BE ANSWERED BY THE INTERVIEWER UPON ARRIVAL AT THE CLUSTER.		
101	TYPE OF LOCALITY (in which cluster is found)	ASMARA.....1 OTHER TOWN.....2 RURAL.....3	→ 106 → 106
	THE REMAINING QUESTIONS IN SECTIONS ONE AND TWO ARE TO BE ANSWERED BY KNOWLEDGEABLE INFORMANTS FROM THE CLUSTER.		
102	What is the name of the nearest urban center?	NAME_____ [ ][ ]	
103	How far is it in kilometers to the nearest urban center?	KM. TO NEAREST URBAN CENTER..... [ ][ ][ ]	
104	What are the most commonly used types of transportation to go to the nearest urban center? (CIRCLE ALL APPLICABLE)	MOTORIZED.....A ANIMAL.....B WALKING.....C CYCLING.....D OTHER_____...E	
105	What is the main access route to this (LOCALITY/ANSWER TO QUESTION 101?)	ALL WEATHER ROAD.....1 SEASONAL ROAD.....2 OTHER (RIVER/RAILWAY).....3 PATH.....4	
106	What are the major economic activities of the (LOCALITY) inhabitants? RECORD THREE ACTIVITIES	AGRICULTURE.....A LIVESTOCK.....B FISHING.....C TRADING/MARKETING.....D MANUFACTURING.....E MINING.....F OTHER_____...G	
107	Is there telephone service in the (LOCALITY ?)	YES.....1 NO.....2	
108	Please tell me if the following things are in the (LOCALITY)	KILOMETERS	
	Is there a primary school here?	PRIMARY SCHOOL..... [ ][ ]	
	Is there a middle school here?	MIDDLE SCHOOL..... [ ][ ]	
	Is there a secondary school here?	SECONDARY SCHOOL..... [ ][ ]	
	Is there a post office here?	POST OFFICE..... [ ][ ]	
	Is there a local market here?	LOCAL MARKET..... [ ][ ]	
	Is there a cinema here?	CINEMA..... [ ][ ]	
	Is there a bank here?	BANK..... [ ][ ]	
	Is there a public transportation here?	PUBLIC TRANSPORTATION.... [ ][ ]	
	Is there a women's association here?	WOMEN'S ASSOCIATION..... [ ][ ]	
	Is there a youth association here?	YOUTH ASSOCIATION..... [ ][ ]	

NOTE: FOR EACH, IF IN LOCALITY, WRITE "00".
IF NOT IN LOCALITY, ASK HOW FAR. WRITE IN KILOMETERS. 97 = Not available or far away

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
113	Where do most of the time women give birth?	AT HOME.....1 AT HEALTH FACILITY/INSTITUTION..2	
114	Is there a traditional birth attendant available to women here who regularly assists during delivery?	YES.....1 NO.....2	→115
114a	Does the traditional birth attendant provide iron supplements?	YES.....1 NO.....2	
114b	Does the traditional birth attendant provide multiple vitamin supplements?	YES.....1 NO.....2	
114c	Has the traditional birth attendant had any special training from the government or Ministry of Health or other organization?	YES.....1 NO.....2 DON'T KNOW.....8	
115	Is the area covered by a trained midwife?	YES.....1 NO.....2	→116
115a	Does the trained midwife provide iron supplements?	YES.....1 NO.....2	
115b	Does the trained midwife provide multiple vitamin tablets?	YES.....1 NO.....2	
116	Is the area covered by a community/village health worker?	YES.....1 NO.....2	→117
116a	Does the health worker provide: a: Basic medications?	BASIC MEDICATIONS: YES.....1 NO.....2	
	b: ORT instruction or ORS packets?	ORT/ORS: YES.....1 NO.....2	
	c: Vitamin A capsules?	VITAMIN A: YES.....1 NO.....2	
	d: Growth promotion/nutrition?	GROWTH PROMOTION: YES.....1 NO.....2	
	e: Iron tablets?	IRON TABLETS: YES.....1 NO.....2	
	f: Multiple vitamin tablets?	MULTIPLE VITAMIN TABLETS YES.....1 NO.....2	
	g: Antenatal care?	ANTENATAL CARE: YES.....1 NO.....2	
	h: Immunizations?	IMMUNIZATIONS: YES.....1 NO.....2	
	i: Family planning services?	FAMILY PLANNING: YES.....1 NO.....2	
	j: Training in prevention of malaria?	MALARIA PREVENTION YES.....1 NO.....2	
116b	How often does the health worker visit?	NO. OF TIMES [ ][ ] PER MONTH	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
117	Has there been any health campaigns in this (LOCALITY) in last year?	YES.....1 NO.....2	GO TO →SEC.2
117a	What was the health campaign promoting?	YES NO BENEFITS OF BREASTFEEDING.. 1 2 IMMUNIZATION..... 1 2 DIARRHEAL DISEASE CONTROL.. 1 2 AIDS..... 1 2 DRUG ABUSE..... 1 2 GROWTH PROMOTION/NUTRITION. 1 2 VITAMIN A..... 1 2 IODINE DEFICIENCY..... 1 2 SANITATION..... 1 2 MALARIA CONTROL..... 1 2 OTHER (SPECIFY)_____ _____ 1 2	

SECTION 2. FACILITY IDENTIFICATION SECTION

What is the name of the nearest doctor with a private practice to this community?
(PROVIDE COUNTRY SPECIFIC DESCRIPTION OF A PRIVATE DOCTOR)

_____

What is the name of the nearest private pharmacy to this community? (PROVIDE COUNTRY SPECIFIC DESCRIPTION OF A PHARMACY)

_____

What is the name of the nearest health center providing general health services to this community?
(PROVIDE COUNTRY SPECIFIC DESCRIPTION OF A HEALTH CENTER)

_____

What is the name of the nearest clinic providing general health services to this community?
(PROVIDE COUNTRY SPECIFIC DESCRIPTION OF A CLINIC)

_____

What is the name of the nearest hospital providing general health services to this community?
(PROVIDE COUNTRY SPECIFIC DESCRIPTION OF A HOSPITAL)

_____

A. PRIVATE DOCTOR

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
A201	NAME OF PRIVATE DOCTOR (COPY FROM SECTION 2, PAGE 4)	PRIVATE DOCTOR'S NAME_____ _____ NOT APPLICABLE .....97 DON'T KNOW.....98	 →B201
A202	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
A203	What is the most common type of transport to the doctor's practice?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
A204	How long does it take to get from here to (PRIVATE DOCTOR'S NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
A205	Does this private doctor provide : antenatal care? delivery care? child immunization? family planning services?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 CHILD IMMUNIZATION...1 2 8 FAMILY PLANNING.....1 2 8	 →A210
A206	Who is the nearest doctor with a private practice who provides family planning services to this community?	PRIVATE DOCTOR'S NAME_____ _____ NOT APPLICABLE.....97 DON'T KNOW.....98	 →A210 →A210
A207	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
A208	What is the most common type of transport to the doctor's practice?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
A209	How long does it take to get from here to (PRIVATE DOCTOR'S NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
A210	How many private doctor practices in total are there within 30 kilometers?	NO. PRIVATE DOCTORS WITHIN 30 KM..... [ ][ ]	

B. PHARMACY

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
B201	NAME OF PHARMACY (COPY FROM SECTION 2, PAGE 4)	PHARMACY NAME_____ NOT APPLICABLE .....97 DON'T KNOW.....98	 →C201
B202	Is that a government pharmacy or is it operated by a non-government organization ?	GOVERNMENT .....1 NON-GOVERNMENT.....2	
B203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
B204	What is the most common type of transport to the pharmacy?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
B205	How long does it take to get from here to (PHARMACY NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
B206	Does this pharmacy sell family planning supplies?	YES.....1 NO.....2 DON'T KNOW.....8	→B212
B207	What is the name of the nearest pharmacy which sells family planning supplies to this community?	PHARMACY NAME_____ NOT APPLICABLE.....97 DON'T KNOW.....98	 →B212 →B212
B208	Is that a government pharmacy or is it operated by a non-government organization ?	GOVERNMENT .....1 NON-GOVERNMENT.....2	
B209	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
B210	What is the most common type of transport to the pharmacy?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
B211	How long does it take to get from here to (PHARMACY NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
B212	How many private pharmacies in total are there within 30 kilometers?	NO. PHARMACIES WITHIN 30 KM..... [ ][ ]	

C. HEALTH CENTER

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
C201	NAME OF HEALTH CENTER (COPY FROM SECTION 2 PAGE 4)	HEALTH CENTER NAME _____ _____ NOT APPLICABLE .....97 DON'T KNOW.....98	 →D201
C202	Is that a government health center or is it operated by a non-government organization?	GOVERNMENT.....1 NON-GOVERNMENT.....2	
C203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
C204	What is the most common type of transport to the health center?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
C205	How long does it take to get from here to (HEALTH CENTER NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
C206	Does this health center provide : antenatal care? delivery care? growth promotion? child immunization? family planning services?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 GROWTH PROMOTION.....1 2 8 CHILD IMMUNIZATION...1 2 8 FAMILY PLANNING.....1 2 8	 →C213
C207	What is the name of the nearest health center providing family planning services to this community?	HEALTH CENTER NAME _____ _____	
C208	Is that a government health center or is it operated by a non-government organization?	GOVERNMENT.....1 NON-GOVERNMENT.....2	
C209	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
C210	What is the most common type of transport to the health center?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
C211	How long does it take to get from here to (HEALTH CENTER NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
C212	Does this health center provide : antenatal care? delivery care? growth promotion? child immunization?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 GROWTH PROMOTION.....1 2 8 CHILD IMMUNIZATION...1 2 8	
C213	How many health centers in total are there within 30 kilometers?	NO. HEALTH CENTERS WITHIN 30 KM..... [ ][ ]	

D. CLINIC

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
D201	NAME OF CLINIC (COPY FROM SECTION 2, PAGE 4)	CLINIC NAME _____ _____ NOT APPLICABLE .....97 DON'T KNOW.....98	 →E201
D202	Is that a government clinic or is it operated by a non-government organization?	GOVERNMENT.....1 NON-GOVERNMENT.....2	
D203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
D204	What is the most common type of transport to the clinic?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
D205	How long does it take to get from here to (CLINIC NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
D206	Does this clinic provide : antenatal care? delivery care? growth promotion? child immunization? family planning services?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 GROWTH PROMOTION.....1 2 8 CHILD IMMUNIZATION...1 2 8 FAMILY PLANNING.....1 2 8	 →D213
D207	What is the name of the nearest clinic providing family planning services to this community?	CLINIC NAME _____ _____	
D208	Is that a government clinic or is operated by a non-government organization?	GOVERNMENT.....1 NON-GOVERNMENT.....2	
D209	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
D210	What is the most common type of transport to the clinic?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
D211	How long does it take to get from here to (CLINIC NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
D212	Does this clinic provide: antenatal care? delivery care? growth promotion? child immunization?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 GROWTH PROMOTION.....1 2 8 CHILD IMMUNIZATION...1 2 8	
D213	How many clinics in total are there within 30 kilometers?	NO. CLINICS WITHIN 30 KM..... [ ][ ]	

E. HOSPITAL

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
E201	NAME OF HOSPITAL (COPY FROM SECTION 2, PAGE 4)	HOSPITAL NAME_____ NOT APPLICABLE .....97 DON'T KNOW.....98	 →F214
E202	Is that a government hospital or is it operated by a non-government organization?	GOVERNMENT.....1 NON-GOVERNMENT.....2	
E203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
E204	What is the most common type of transport to the hospital?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
E205	How long does it take to get from here to (HOSPITAL NAME) using most common type of transport?	HOURS..... [ ][ ] MINUTES..... [ ][ ]	
E206	Does this hospital provide: antenatal care? delivery care? growth promotion? child immunization? family planning services?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 GROWTH PROMOTION.....1 2 8 CHILD IMMUNIZATION...1 2 8 FAMILY PLANNING.....1 2 8	 →E213
E207	What is the name of the nearest hospital providing family planning services to this community?	HOSPITAL NAME _____ _____	
E208	Is that a government hospital or is is operated by a non-government organization?	GOVERNMENT.....1 NON-GOVERNMENT.....2	
E209	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
E210	What is the most common type of transport to the hospital?	MOTORIZED (FOR EXAMPLE, BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER_____5	
E211	How long does it take to get from here to (HOSPITAL NAME) using most common type of transport?	HOURS..... [ ] MINUTES..... [ ][ ]	
E212	Does this hospital provide: antenatal care? delivery care? growth promotion? child immunization?	YES NO DK ANTENATAL CARE.....1 2 8 DELIVERY CARE.....1 2 8 GROWTH PROMOTION.....1 2 8 CHILD IMMUNIZATION...1 2 8	
E213	How many hospitals in total are there within 30 kilometers?	NO. HOSPITAL WITHIN 30 KM..... [ ][ ]	

CONTRACEPTIVE METHOD AND HEALTH SERVICES IDENTIFICATION

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
F214	What is the name of the nearest place where birth control pills can be obtained?	NEAREST PILL PROVIDER NAME _____ NOT APPLICABLE .....97 DON'T KNOW.....98	
F215	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F216	What is the name of the nearest place or provider to this community where condoms can be obtained?	NEAREST CONDOM PROVIDER NAME _____	
F217	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F218	What is the name of the nearest place to this community where family planning injection can be obtained?	NEAREST INJECTION PROVIDER NAME _____	
F219	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F220	What is the name of the nearest facility or provider to this community where IUDs can be inserted?	NEAREST IUD PROVIDER NAME _____	
F221	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F222	What is the name of the nearest facility or provider to this community where female sterilization can be obtained?	NEAREST STERILIZATION PROVIDER NAME _____	
F223	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F224	What is name of the nearest place to this community where immunizations for children can be obtained?	NEAREST IMMUNIZATION PROVIDER NAME _____	
F225	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F226	What is the name of the nearest place to this community where oral rehydration solution (ORS) packets can be obtained?	NEAREST ORS PLACE NAME _____	
F227	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
F228	If child is sick with cough (respiratory disease), what is the name of the nearest place where treatment can be obtained?	NEAREST RESP. DISEASE TREATMENT PLACE _____	
F229	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F230	What is the name of the nearest place to this community where antenatal care can be obtained?	NEAREST ANTENATAL PROVIDER NAME _____	
F231	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F232	If a woman has a complication in delivery, what is the name of the nearest place she can be treated?	NEAREST DELIVERY PLACE NAME _____	
F233	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	
F234	If a person has malaria, what is the name of the nearest place/person can get medicine?	NAME OF PLACE FOR MALARIA TREATMENT _____	
F235	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... [ ][ ]	