

## **Diseases**

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Ethiopia encompasses a variety of geographic and climatic zones, with a wide range of disease. Average male lifespan is 41.4 years, female is 43.1 years. The death rate in the first year of life is 112.9/1000, from 0-5 years it is 187.8/1000. Full immunization rates are 14.4%.

**Diarrhea** (Tokumat) is responsible for nearly half of all deaths by age 5. The overall rate of diarrhea in the 2 weeks before the 2000 Demographic and Health Survey (DHS) of 15,716 women and 2771 men was 23.6% (range: 12.2% in Addis Ababa to 19.3% in the Amhara region, 25% in the Oromiya, and 29.4% in SNNP). Nearly 66% of mothers knew about packets of oral rehydration salts. 13.3% of children were brought to a health provider, 44.9% got increase in fluids, oral rehydration salts, or homemade rehydration fluid.

Diarrhea is believed caused by the will of God. A survey of over 500 mothers in 3 Gondar villages found that 84.5% believed that milk teeth extraction is useful in the treatment of diarrhea. 70% of children surveyed had undergone this procedure.

**Hepatitis** (YeWof Beshita, lit: "the bird disease") is very common. About 100% have antibodies to hepatitis A (transmitted by fecal-oral route) by age 15. Approximately 10-13% are carriers of the hepatitis B surface antigen. This is felt to be due to locally acquired transmission, and not mother-to-child transmission. Hepatitis is believed caused by a bat or bird flying overhead.

**Intestinal parasites** account for 8.5% of male and 10.4% of female visits to OPDs. Prevalence rates of 19% have been reported for ameba, 11% for giardia. Ethiopians often acquire *Taenia saginata* from eating raw beef. They treat themselves with about a dozen traditional remedies, especially kosso (*Hagenia abyssinica*). Roundworm (*Ascaris lumbricoides*) rates increase with altitude, with 59% in altitudes >2500 meters. Hookworm (especially *Necator americanus*) rates peak at nearly 29% in the 800-1200 altitude range.

It is estimated that 20% of Ethiopians are affected by *Schistosomiasis mansoni*. Most of the endemic communities are in villages and small towns by rivers and streams at

intermediate altitudes between 1300 and 2000 meters, especially the Lake Tana basin. *Biomphalaria pfeifferi* is the most common snail host. In contrast, *S. hematobium* is found below 800 meters in the Awash valley, the lower Wabe Shebele Valley, and among the Sudan border in Wellega.

**The rate of blindness** is 1.5%; 80% due to preventable or curable diseases. About 40% of blindness is due to trachoma.

**Leprosy** (*yisiga deway*) rates declined from 26/1000 in 1982 to .7/1000 in 1990.

**TB:** (*sanba nikersa*) The 1988-1990 Tuberculosis survey found that there was a 1.4% annual risk of infection. It is likely that this has increased in recent years due to the prevalence of HIV.

Ethiopia is located at the eastern end of the African **meningitis** belt. Epidemics of meningococcus (*N. meningitidis*, group A) occur every 8-10 years. The last epidemic was in 2000.

**Sexually transmitted diseases** rank 6<sup>th</sup> out of 15 reported disease groups. Gonorrhoea (*chebt*) is most common, often attributed to urinating under a full moon.

**Malaria:** (*woba beshita*) About 3/4 of the country is thought to have malaria, in areas below 2000 meters. It is especially found in Humera, Metema, Metekel, Babel, Gode, and the Awash Valley. Cases peak after cessation of the rains, both in September and in April. *Anopheles gambiae* is the most common vector in Ethiopia. It is estimated that *P. falciparum* causes 60% of cases, with most of the remainder caused by *P. vivax*. It is believed to a variety of causes, especially sleeping in an arid area.

**AIDS:** UNAIDS estimates that 3 million Ethiopians are infected with the HIV virus, an adult rate of 10.6%. This rate is #16 in the world, but the number is #3 in the world after S. Africa and India. 1/11 of all HIV+ people in the world reside in Ethiopia. AIDS is primarily transmitted through heterosexual relations. 42% of hospital beds are taken by AIDS patients, and 1.2 million have been orphaned.

The DHS found that 34% of women and 60% of men knew that condom use could prevent HIV. 32% of women and 8% of men knew no way of preventing HIV. 30.3% of men and 13.4% of

women used a condom in their last intercourse with a non-cohabiting partner.

**Rheumatic Heart Disease** due to consequences of rheumatic fever is the most common form of heart disease in young people and adults. Myocardial infarction is becoming more common, with several admissions per week at Black Lion Hospital.

Unique diseases and conditions to Ethiopia include:

**Relapsing fever**, caused by *Borrelia recurrentis* and transmitted by lice, is highly endemic in Ethiopia. It is likely that there are at least 10,000 cases annually, more than any other country. It tends to be found in the highlands from August-December.

**Neurolathyrism, spastic paraparesis** caused by a neurotoxin in a grass pea, (*Lathyrus sativus*), commonly known as guaya. It is found Epidemics have been reported during famine times. In the Gondar area of Lake Tana, rates up to 3% have been reported from certain villages, with an overall rate as 1.7/100,000. This is also seen in India and Bangladesh.

**Podoconiosis**, non-filarial elephantiasis, is found in highland areas with underlying basalt rock. A survey of 250,000 people in the fertile highlands showed that 27.2/1000 over age 15 were affected. It is possible that over 500,000 Ethiopians are affected. This is related to farming while barefoot. Ultra-fine particles of aluminum silicate in the clay soil enters the skin, along with silica, alumina, and iron. There is no treatment, but the use of footwear is thought to be protective.

**Fistula:** The rate of fistula, a consequence of obstructed labor, in Ethiopia is 55/100,000 births, believed to be the highest in the world. The Fistula Hospital in Addis Ababa operates on over 1000 cases/ year.

**Epidemic fluorosis** is common in the Ethiopian rift system, including the Ethiopian rift valley. 64% of people living in Wonji for over 20 years had physical impairments consistent with this, including myelopathy and radiculopathy due to excess fluoride in the water.

21 types of traditional healers have been reported in Ethiopia. Common traditional practices include uvulectomy

(to prevent suffocation which would occur when the baby has a sore throat), eyelid incision for prevention or treatment of eye disease, tooth extraction known as geg for diarrhea (especially lower incisors), female circumcision (DHS prevalence rates of 79.9%, with 59.7% of women supporting the practice). Traditional diseases include zar (spirit possession), moynbagegn (headache with neurologic symptoms, and attent hono kere (permanent pregnancy which has turned to bone).

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