



Ethiopia



Population:
102,403,196 (2017
Estimate)

Area: 1,104,300 km²

GDP(PPP): \$79.735
billion

Currency: Birr (1
USD = 27.57 Birr)

Languages: Amharic
(official), Oromo, Afar,
Tigrinya, Somalia,
Harari

AUDIOLOGY IN ETHIOPIA

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DEMOGRAPHIC INFORMATION

Ethiopia is considered a middle-income country, and the 2nd largest sub Saharan country in Africa. The number of birth's annually is 35.9 per 1000 inhabitants (World Bank data 2016), and its current population consists of 102 million people. There are two major languages, Amharic and Oromo, which are spoken by 95% of its population. There are several ethnic groups in the country. Ethiopia shares borders with Eritrea to the north; Djibouti and Somalia to the east; Somalia and Kenya to the south; and Sudan in the northwest.

Ethiopia was shortly colonized by Italy, and was a Kingdom ruled latest by king Haile Selassie until 1974. After this period, it was ruled by the communist Derg regime, and since 1991 it is a Federal Democratic Republic. According to the IMF, Ethiopia is one of the fastest growing economies in the Africa subcontinent. Agriculture constitutes around 85% of the labor force. Coffee is the major export product.

Table 1: Country information (source Wikipedia)

Country name	Ethiopia
Population	1102,403,196 (2017 estimate)
Area	1,104,300 km ²
GDP (PPP)	\$79.735 billion (2017 estimate)
Languages	Amharic (official), Oromo, Afar, Tigrynia, Somali, Harari

HISTORY OF AUDIOLOGY/ AURAL CARE

Most audiology services in Ethiopia were initiated by non-governmental organizations. Services probably started in deaf schools around the 1980's. Currently, there is an unknown number of clinics offering hearing assessments. These centers may be privately owned, or located in public hospitals. Audiology clinics are mainly concentrated in the capital city of Addis Ababa. We are not aware of audiologic facilities outside the capital city. There are five deaf school in Addis Ababa. There is one deaf school in the rural parts of Ethiopia, in Hosannah. These estimates may be low. Presently, there are no certified audiologists working in Ethiopia. Ethiopia, like many other African countries, has no early identification and intervention program.

HEARING LOSS INCIDENCE AND PREVALENCE

At this time, no studies on the prevalence of hearing loss in rural and urban populations have been performed. So, it is difficult to assess the prevalence of hearing loss in the general population. Smith et al. performed a study which assessed the presence of hearing loss in children with HIV, who are enrolled in one primary school. In this study, defining hearing loss as thresholds greater than 25 dB, the prevalence was 13%; with a pure tone average (PTA) of

more than 40 dB the prevalence was 6%. These numbers seem to be in agreement with estimates from World Health Organization (WHO). However, there is a definite need for more data that also investigate the prevalence of hearing loss in the general population, especially in the rural setting.

INFORMATION ABOUT AUDIOLOGY

EDUCATION

Currently there is a “special needs” curriculum within Addis Ababa University, which contains a module for speech-pathology- with some audiology and educational skills. There is no certified training for audiologist except online courses elsewhere. There is no degree to be achieved. The aim of two different non-profit organizations is to set up an audiology training program in cooperation with St. Paul Millennium Hospital in Addis Ababa (www.sphmmc.edu.et).

AUDIOLOGY PRACTICE: PUBLIC VERSUS PRIVATE

The following services are available in private and public settings:

- Pure-tone audiometry
- Tympanometry
- Impedance audiometry
- Otoacoustic emissions
- Screening auditory brain stem response

The government supports medical care only for the very poor. In general, it is our impression that the quality of audiometry is (very) poor in public hospitals. In the public hospitals we have visited, the above-mentioned services are mostly absent. In rural communities, there is no audiological care available.

Services offered by Medical Professionals

Otolaryngologists offer ear care services in hospitals in Ethiopia. All of these professionals have received their training in Addis Ababa (Black Lion, Yekatit 12, and St Paul’s Millennium Hospital). Medical doctors that had their medical training outside Addis Ababa sign a contract to go back to their primary university and practice otolaryngology outside the capital city. However, 80% of ENT care is facilitated in the capital city.

AUDIOLOGICAL SERVICES

Due to the lack of a certified audiologist in Ethiopia, we are not aware of any special service in deaf schools, private and public areas provided by an audiologist. We are not aware of special

clinics that focus on tinnitus management; vestibular assessment and auditory processing disorders.

There is a hearing aid specialist in Addis Ababa, that works with the Starkey foundation. Hearing aid supplies in private practice comes from Sudan.

Ethiopia had no neonatal screening. There are also no services provided for children from birth to three. Due to lack of training, the hearing aid specialists do not feel comfortable working with this population.

Limited mobile services are only being provided by organizations (from The Netherlands, United Kingdom, and United States) on a volunteer basis.

PROFESSIONALS

Ethiopia has a health workforce of 0.7 per 1000 population, which is low compared with the WHO recommendation of 2.3 health workers per 1000 population. The physician to population ratio in Amhara, Oromia and regional states was computed to be 1: 280,000, 1: 220,000, and 1: 230,000, respectively.

At present, we assume there are no registered audiologist working in Ethiopia. A 2015 survey indicated that 1 audiologist is working in Ethiopia; however, this is a clinical nurse trained in performing audiometry. We are not aware of any practicing otologists and ENT physician assistants. In rural settings, most hospitals will have an eye nurse, and sometimes nurses with a specialization in ENT are present. This bottom up procedure is a point of interest, and facilitated by the 4-5 groups working in rural centers in Attat, Wolisio, Butajira, Bahir Dar, Aksum, Tigray, and Aawassa. For instruction of basic ear care, the WHO guidelines and manuals will be utilized (http://www.who.int/pbd/deafness/activities/hearing_care/en/).

Ear and Hearing Care Professionals in [Ethiopia ; data 2015]

Professionals	Approximate number	Ratio to the population
Audiologists	0	0: 102,403,196
Otolaryngologists	25	1:4,100,000
Micro-Ear Surgeons	Unknown	
Neurotologists	Unknown	
Physician Assistants	Unknown	

Nurse Practitioner	Unknown	
Physicians	Unknown	See calculations in text
Speech-Language Pathologists	0	
Teachers of the Deaf	Unknown	
Hearing Aid Specialists	1	1: 102,403,196

PROFESSIONAL AND REGULATORY BODIES

There are no professional and regulatory bodies present in Ethiopia for audiology.

SCOPE OF PRACTICE AND LICENSING

With a limited number of hearing healthcare professionals, information about licensing and scope of practice are not available.

AUDIOLOGY CHARITIES

- Dutch Eardrop Foundation www.eardrop.nl
- Healing the Children <http://healingthechildren.org/>
- Aksum Initiative drtimcb@fastmail.com
- Visions Global Empowerment www.visionsglobalempowerment.org
- Global ENT Outreach <http://www.geoutreach.org>
- Hearing Loss Prevention in Ethiopia-Partners for Global Hearing kelleyr@upstate.edu

CHALLENGES, OPPORTUNITIES, AND NOTES

The biggest challenge for audiological and ENT care in Ethiopia will be establishing ear care from a “bottom-up” procedure; starting with raising awareness for the growing disability problem of hearing loss. All LMIC countries will face the future an enormous increase in hearing problems in young individuals (noise induced, chronic suppurative otitis media (CSOM), hearing disorders related to HIV and TB treatment); as well as an increase in age related hearing loss (presbycusis).

Non-government Organizations may be able to assist in making aural care accessible by initiating relationships with the public health field and the (local) responsible ministries. More

focus should be given to the scope of these problems in a bottom–up procedure which strengthens the work of the clinical officers, and basic audiological care like screening programs.

Additionally, there is lack of state of the art equipment, training facilities and (online teaching facilities), as well as audiological rehabilitation services.

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- Mulwafu WK, Ensink RJH, Kuper H, Fagan JJ. Survey of ENT services in sub-Saharan Africa Little progress between 2009-2015. *GlobHealthAction.* 2017;10(1):1289736.
- Prevalence of Hearing-Loss Among HAART-Treated Children in the Horn of Africa. Smith AF, Ianacone D, Ensink R, Melaku A, Casselbrant ML, Isaacson G. *International Journal of Pediatric Oto-rhinolaryngology.* 2017 Jul;98:166-170.

USEFUL LINKS

- Dutch Eardrop Foundation www.eardrop.nl
- Healing the children: <http://healingthechildren.org/>
- Aksum Initiative. drtimcb@fastmail.com
- Visions Global Empowerment www.visionsglobalempowerment.org
- Global ENT Outreach: <http://www.geoutreach.org>
- Hearing Loss Prevention in Ethiopia-Partners for Global Hearing: kelleyr@upstate.edu

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