



PROFILE OF

**DABAT HEALTH AND DEMOGRAPHIC SURVEILLANCE
SYSTEM / DABAT RESEARCH CENTER**

Dabat Health and Demographic Surveillance System

Dabat Health and Demographic Surveillance System (HDSS), also called the Dabat Research Center (DRC), was established at Dabat District in 1996 by the then Gondar College of Medical Sciences. Currently the surveillance is being run by the College of Medicine and Health Sciences which is one of the colleges/faculties of the University of Gondar. Dabat district is one of the 21 districts in North Gondar Administrative Zone of Amhara Region in Ethiopia (Figure 1). According to the report published by the Central Statistical Agency in 2007, the district has an estimated total population of 145,458 living in 27 rural and 3 urban Kebeles (sub-districts). The altitude of the district ranges from about 1000 meters to over 2500 meters above sea level. The district population largely depends on subsistence agriculture economy. There are two health centers, three health stations, and twenty-nine health posts providing health services for the community. An all-weather road runs from Gondar town through Dabat to some towns of Tigray. Dabat town, the capital of Dabat District, is located approximately 821 km northwest of Addis Ababa and 75 kms north of Gondar town.

Dabat district was initially selected purposively as a surveillance site for its unique three climatic conditions, namely Dega (high land and cold), Woina dega (mid land and temperate) and Kolla (low land and hot). The choice was made with the assumption that there would be differences in morbidity and mortality in the different climatic areas. Accordingly, seven kebeles from Dega, one kebele from Woina dega, and two kebeles

from Kolla were selected randomly after stratification of the kebeles by climatic zone. The seven selected kebeles were rural and the remaining 3, urban.

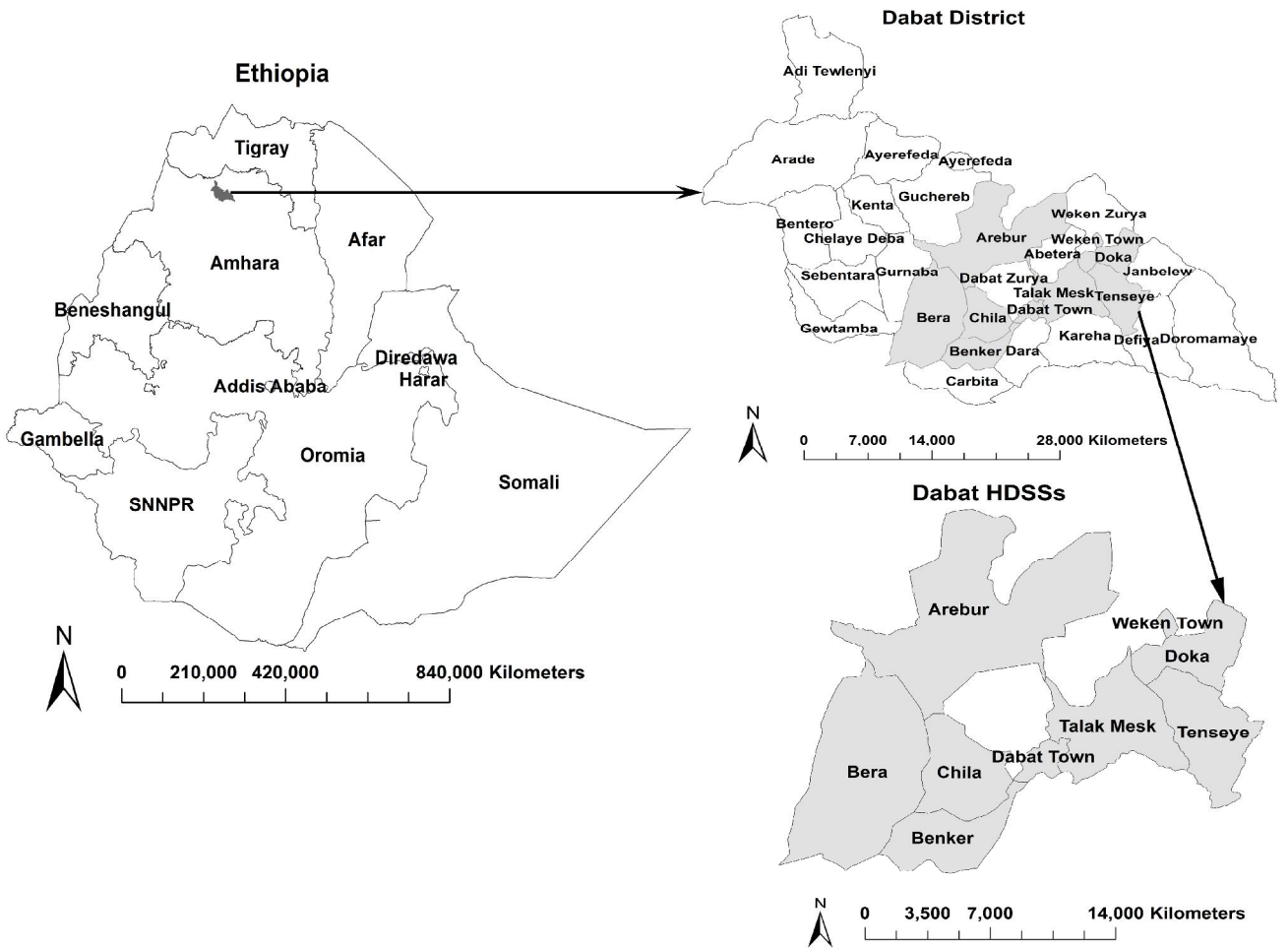


Figure 1: Location of Dabat HDSS site

The second survey conducted in 2008 revealed that there were a total of 45,640 people living in seven rural and three urban Kebeles of the study area. Out of the total population in the study area, 35,894 (78.6 %) were from the rural area. There were 9,526 households with an average household size of 4.79 persons. About 49 % (22,378) were male and 51 % (23,262) were female, with a male to female ratio of 1:1.04.

While there were a total of 1355 (3.0% of the total population) infants under one year of age, children under the age of 15 constituted 45.4% of the total population. Forty five thousand five hundred seventy nine (99.9 %) were Amhara by ethnicity. About 97% (44250) of the study subjects were Orthodox Christians. Among the study population 32.2% (14682) were married and 28.8% (13153) single. Regarding the educational status of the study subjects, about 34.1% (15577) were unable to read and write. Ten thousand nine hundred and thirty-seven (23.96 %) were students, and 17.24 % (7870) were farmers.

In 2012, after 4 years of follow-up, the total population reached 46,984 out of which 23,777 (50.6%) were males and 23,207 (49.4%) females. While the total residents of the rural area were 36,751 (78.2%), there were 10,233 (21.8%) people living in the urban area. The 2011/2012 population pyramid is shown in figure 2

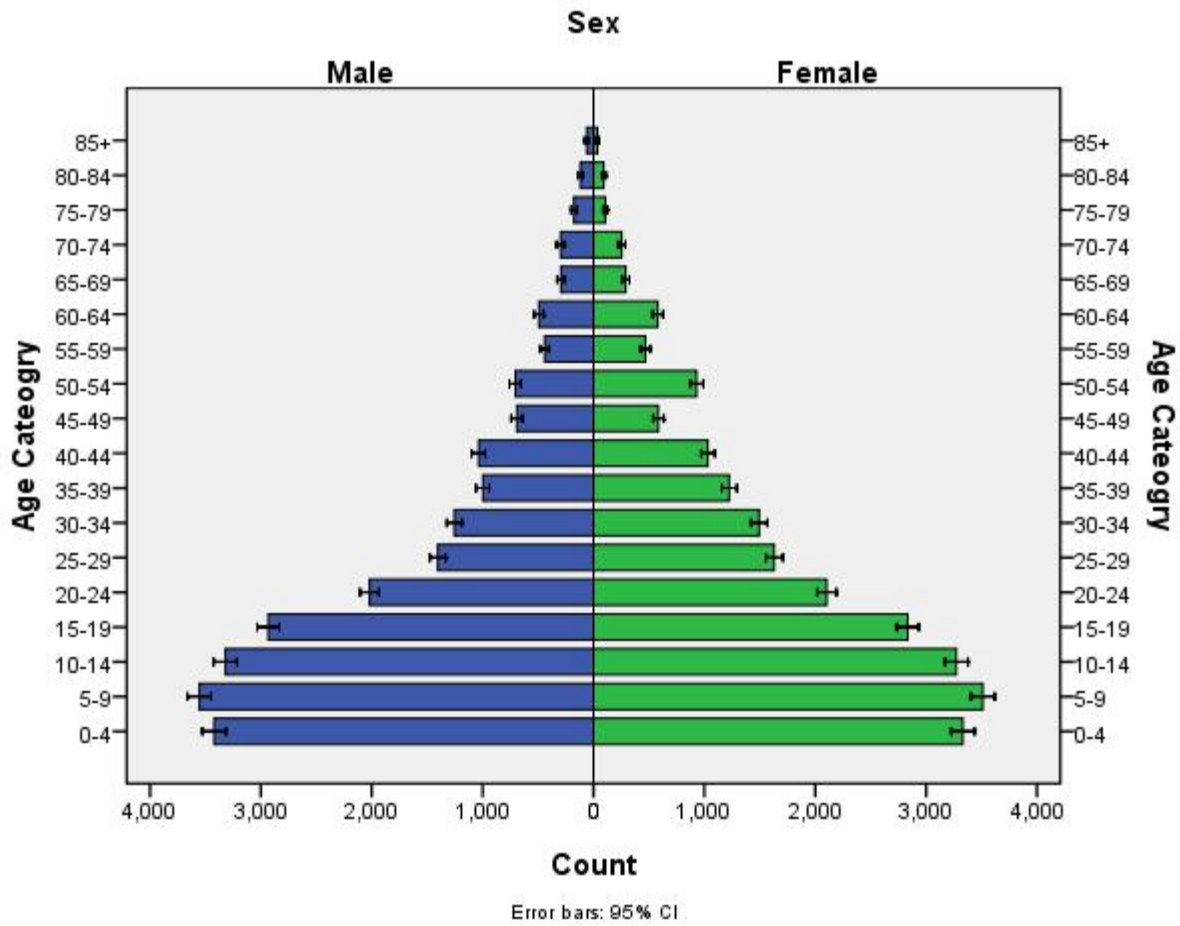


Figure 2: Population pyramid of Dabat HDSS site, March 9, 2012

Demographic Characteristics of Dabat HDSS, Sept 12, 2011-Sept 10, 2012

Crude Birth Rate (CBR)	28.16 per 1000 population
Total Fertility Rate (TFR)	3.9 per woman
Crude Death Rate (CDR)	6.04 per 1000 population
Neonatal Mortality Rate	37.79 per 1000 live births
Post-neonatal Mortality Rate	18.9 per 1000 live births
Infant Mortality Rate	56.69 per 1000 live births
Child Mortality Rate (1-4 years)	4.45 per 1000 children 1-4 years
Rate of Natural Increase	22.11 per 1000 population
In-Migration Rate	32.63 per 1000 population
Out-Migration Rate	30.76 per 1000 population
Net migration Rate	1.87 per 1000 population
Growth Rate	2.4 per 100 population

Objectives

Dabat HDSS/ Dabat Research Centre was established to generate longitudinal data on health and population at district level and provide a study base and sampling frame for community-based research.

Priority research areas

- Population dynamics
- Communicable diseases (tuberculosis, malaria, diarrheal diseases etc..)
- Reproductive Health (Quality of Maternal, Child and family planning services; experience of women during the extended postpartum period- sexual activity, return of menses, fertility intention, contraceptive use; factors associated with unmet need for contraceptives and use of contraceptives etc..)
- Nutrition
- Non communicable diseases (Cardiovascular diseases, diabetes mellitus, chronic respiratory diseases, epilepsy, cancer etc...)
- Ascertaining causes of death at community level
- Vaccine trials

Funders

Centers for Disease Control and Prevention (CDC)

Collaborators

- Ethiopian Public Health Association
- Ethiopian Universities Research Centers Network

Key Publications

1. Tadesse T, Getachew A, Admassu M, Kebede Y, Awoke T, Melesse T, Amsalu S, Alemu S, Andarge G, Wassie B, Tefera Y, Yifru S, Alemu K, G/Selassie S, Meseret S. Demographic and Health Survey at Dabat District in Northwest Ethiopia: Report of the 2008 baseline survey. Ethiopian Journal of Health and Biomedical Sciences. Sept. 2011; 4(Special issue)
2. Fantahun M, Kumbi S, Degu G, Kebede Y, Admassu M, Haile W, Hailu S. Dabat Rural Health Project, Northwest Ethiopia, Report of the baseline survey. EJHD. 2001; 15(special issue)

3. Megabiaw B, Adefris M, Rortveit G, Degu G, Muleta M, Blystad A, Kiserud T, Melesse T, Kebede Y. Pelvic floor disorders among women in Dabat District, northwest Ethiopia: a pilot study. *International Urogynecology Journal*. November 2012, 23(11)
4. Tadesse T, Demissie M, Berhane Y, Kebede Y, Abebe M (2011). Two-Thirds of Smear Positive Tuberculosis Cases in the Community were Undiagnosed in Northwest Ethiopia: Population Based Cross Sectional Study. *Plos ONE*. 6(12):e28258. Doi:10.1371/journal.pone.0028258
5. Okwaraji Y, Cousens S, Berhane Y, Mulholland K, Edmond K. Effect of Geographical Access to Health Facilities on Child Mortality in Rural Ethiopia: A Community Based Cross Sectional Study. *PLoS ONE*. March 2012; 7(Issue 3)