Non-communicable diseases (NCDs), including cardiovascular diseases (CVDs), are leading causes of death globally. CVDs accounted for 46% of all NCD deaths worldwide in 2012, and are rapidly increasing in low-middle income countries (WHO, 2014). The vast majority of heart failure causes in sub-Saharan Africa are due to non-ischemic causes; with rheumatic heart disease (RHD), hypertensive heart disease (HHD), and cardiomyopathy accounting for over 60% of cases.

Epidemiological data on CVD disorders are generally scarce in low-middle income countries, including Ethiopia. The Ethiopian government developed a national NCD action plan and is conducting a NCD risk factor survey to assess baseline risk factors. This initiative aims to achieve a 25% reduction in the NCD related mortality by 2025, a goal set by the Global NCD Action Plan.

### Objective

The primary objective was to supplement community-based surveys by describing the current situation of CVDs in main referral hospitals of the country. Secondary objective

- Describe the socio-demographic and clinical characteristics of patients with CVD
- Better understand the types of treatment or treatment gaps for cardiac patients

### Methodology

A prospective cross-sectional, descriptive analysis was conducted using clinical and sociodemographic data from pediatric and adult cardiac patients seen at six major hospitals in Ethiopia from January 2015 to June 2015.

### Results

A total 6275 patients were included in the study. The majority were female (58.5%), urban residents (60.9%), with a mean age of 34.7 years (range of 0.6 years to 95 years). Of the study participants, 31.1% were younger than 18 years of age. Valvular heart disease was the primary diagnosis in 40.5% of the cases, with rheumatic heart disease accounting for 86% of the valvular diagnosis. The next common diagnoses were: congenital heart disease (17.8%), hypertensive heart disease (13.6%), ischemic heart disease (9.6%), cardiomyopathy (8.0%) and pulmonary hypertension (4.1%). The majority of patients (96.3%) with congenital and severe valvular heart disease did not receive surgical or percutaneous interventions due to the lack of available facilities and trained personnel.

### Discussion

Findings support the limited body of research to date that confirms that RHD remains the leading CVD diagnosis in Ethiopia and that the proportion of HHD and IHD are increasing. A large number of diagnoses were made clinically. Tikur Anbessa hospital has the largest number of patients due to the referral pattern of patients to the hospital for diagnosis and possible surgical treatment. This report is different from previous reports because it was the first prospective multi-site study including both adult and pediatric patients.

### Conclusion

Cardiac valvular heart disease remains the leading cardiovascular diagnosis in Ethiopia. Unfortunately, nearly all of those diagnosed are not receiving treatment for their disease due to a combination of limited healthcare resources, access and lack of trained personnel. Governmental and health care agencies must prioritize healthcare spending to improve the prevention and treatment of these highly treatable conditions.

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