

CVD burden in Ethiopia: A need for Community-driven risk screening

August, 2022



Caption: www.ahri.gov.et

The Status of CVD in Ethiopia

In Ethiopia, the burden of cardiovascular disease (CVD) is significant, with mortality (54.7%), DALYs (57.7%), and all-cause mortality (53.4%) attributed to CVD¹. Currently screening is done by nurses and physicians at health centers and hospitals. Detection of early disease often with no or minimal symptoms is thus challenging. Community-based health extension workers (HEWs) have been considered as a solution to this gap as HEW-led CVD screening facilitated by a mobile app was found effective as it reduces time and improved referral of at-risk persons to care in many countries².

Unmet need for CVD risk

There is limited access to screening for CVD risk in Ethiopia, due to the inaccessibility of laboratory screening and inadequate workforce. Given the importance of HEW in the Ethiopia Health System it is reasonable to task-shift CVD screening from nurses and doctors at health clinics to trained community-based health extension workers, particularly in rural settings. This will contribute largely towards achieving equitable access to care, and universal health coverage advocated by Ethiopia ministry of health.

In 2021, the under Collaboration for Evidence-based Health Care and Public Health in Africa (CEBHA+) project implemented a community-based HEW-led non-laboratory-based CVD screening and referral at urban, semi-urban and rural sites within Ethiopia. The aim was to conduct community-based CVD risk screening, referral and follow-up of persons with intermediate and high CVD risk to the nearby community health centers. The study findings showed that among a total of 1300 screened and 124 referred, 64% of referred participants, including 75% from rural sites, had attended clinic within 4 weeks post-screening³.

Priority Actions for MOH, NCD division

- 1** Facilitate the Screening and early detection of CVD risk in Ethiopian rural and urban communities
- 2** Guide the Development and incorporation of CVD screening app with the existing mobile app and training CHEWs to conduct screening, referral and follow-up at community level
- 3** Create a referral linkages with local health centers and communities



Caption: <https://www.gov.uk/government/case-studies/health-heroes-women-taking-the-lead-in-health-in-ethiopia>

Key Findings

- 1 Trained HEWs were able to screen community members for CVD risk, counsel, refer and follow up to assess care in the health centres
- 2 The use of a mobile CVD risk app allowed timely identification of persons at risk
- 3 Nearly 10% of rural and 13.9 % of urban participants were found to have a high CVD risk score respectively.
- 4 Participants identified with hypertension and referred for care were 21.2% in the urban region and 10.9% in the rural sites.
- 5 64% clinic attendance was achieved after screening by HEWs in rural and urban communities within the first 4 weeks.

Implications

The implementation of non-lab based CVD risk screening facilitated by a mobile app by community-based Health Extension Workers will have the following implications:

- *Easier access to screening and early detection for CVD risk at the community level, particularly in rural settings, can help to reduce CVD related morbidity and mortality.*
- *Establishment of a referral linkage to health centers can strengthen the relationship between community, their local care providers and HEW at the health post level. This will strengthen the capacity of the MOH to assess HEW capacity and monitor progress.*
- *There may be cost implications regarding the manpower and training needed for the implementation in rural regions of the country. Community-driven CVD risk screening for universal health coverage in Ethiopia will support achievement of prevention-led health care, which Ethiopia is currently following as a health policy.*

Reference

¹Solomon Ali, Awoke Misganaw, Asnake Worku, Zelalem Destaw, Legesse Negash, Abebe Bekele, Paul S Briant, Catherine O Johnson, Tahiya Alam, Chris Odell, Gregory A Roth, Mohsen Naghavi, Ebba Abate, Alemnesh H Mirkuzie, The burden of cardiovascular diseases in Ethiopia from 1990 to 2017: evidence from the Global Burden of Disease Study, *International Health*, Volume 13, Issue 4, July 2021, Pages 318–326, <https://doi.org/10.1093/inthealth/ihaa069>

²Gaziano TA, Abrahams-Gessel S, Denman CA, Montano CM, Khanam M, Puoane T, Levitt NS. An assessment of community health workers' ability to screen for cardiovascular disease risk with a simple, non-invasive risk assessment instrument in Bangladesh, Guatemala, Mexico, and South Africa: an observational study. *Lancet Glob Health*. 2015 Sep;3(9):e556-63. doi: 10.1016/S2214-109X(15)00143-6. Epub 2015 Jul 14. PMID: 26187361; PMCID: PMC4795807.

³High rates of referral and voluntary clinic attendance among community members screened with high cardiovascular disease risk in Ethiopia (Unpublished)

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