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Background: Cardiovascular disease (CVD) accounts for 60% of deaths in Sub-Saharan Africa. Current understanding is limited to applying Western models of risk prediction; globalization, sedentary lifestyle and western diets. Previously, we reported high rates of hypertension (HTN) and diabetes (DM) in three Central Kenyan communities. The purpose of this project was to partner with Kenyan nurses to expand our previous work assessing CV risk factor prevalence in Central Kenya by adding metabolic measures and individual and community level risk factors.

Methods: Using community based participatory research, a convenience sample of consecutive cases who presented to 5 clinics in Central Kenya were screened for CV risk factors by the US/Kenyan teams using PCNA Guidelines. The NP team collaborated with local clinics to treat individuals identified as high-risk. A community asset survey was conducted using the social-ecological domains in the Chronic Disease Model.

Results: 640 individuals (mean age 52.7%, 75% female) were screened and found to have high rates of HTN (49.9%), DM (19.7%), and overwt/obesity (46.4%) Women were more likely to have HTN (p=0.006) and to be overwt/obese (p=0.00). As they age (<45, 45-64, 65+) men and women had increased rates of HTN (25.0%, 46.8%, 56.8%) and DM (12.8%, 21.1%, 25.1%). 52% had 2+ risk factors. Individuals self-reported their health to be fair, physically active (farming) and low in dietary intake of western food. The 14 priority health issues identified did not include CV risk factors.

Conclusions: Similar to US blacks, these community level Kenyan data demonstrate: high rates of CV risk factors; age and gender-related increase in risk; and multiple risk factor clustering. Contrary to other reports, adverse patterns of CV related health behaviors were not observed. More research is needed to understand the CV risk of Kenyans in order to develop a culturally appropriate risk reduction intervention.

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