ABSTRACT

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Background: Global risk assessment has become an important part of comprehensive CV evaluation and guides treatment. Most global risk tools require laboratory measurement of lipids, a test not readily available in resource-constrained countries. The Gaziano Risk Score (GRS) is a non-lab based model which includes age, gender, diabetes, smoking, systolic BP and substitutes BMI for cholesterol. In comparative effectiveness analysis the GRS has similar predictive value compared to the Framingham score.

Objectives: The purpose of this study was to add risk stratification using clinical estimations of the number of CV risk factors (CVRF) and the GRS to our community-based CV screenings.

Methods:*Community based participatory research:* a convenience sample of consecutive patients at 5 Kenyan clinics was screened for CVRF by trained US/Kenyan teams using protocols for physiologic and behavioral measures. Clinical data were abstracted, entered onto Excel spreadsheets and imported into Stata$^{(C)}$ for anaysis. US/Kenyan IRB approval was obtained.

Results: 801 individuals (mean age 54 [+/-17.5], 77% female, 98% black) were screened and found to have high rates of HTN (55.6%), DM (9.2%), and BMI >=25 (53.8%). The prevalence of smoking was 5.3%, CVD 3.61% and dyslipidemia 2.81%. The majority, (61.4%) had 2+ CVRF. The GRS (risk of developing CVD in the next 10 years); low risk (<10%), moderate risk (10-20%), and high risk (>20%) was (35.2%, 22.4%, and 42.4%) respectively. Clinician calculations of the GRS were 75% accurate.

Conclusions/Implications: In those individuals who presented for community CV screening the prevalence/clustering of risk factors was high. This has implications for practice and policy. At the individual level it identifies those at high risk for complications and targets therapy; at the population level it can help identify the mean risk in the population which can help guide appropriate policies for access, care delivery and cost in resource-constrained countries.