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Characterizing Cardiovascular Risk in Central Kenya; Kenya *Heart and Sole*: The Afya Njema Project. Poster presentation at the Commonwealth Honors College, Massachusetts Statewide Undergraduate Research Conference, University of Massachusetts Amherst, April 2011

Background: Cardiovascular disease (CVD) is an emerging crisis in Sub-Saharan Africa and we previously reported high rates of hypertension (HTN) and diabetes (DM) in Central Kenya. Many attribute this to the atherogenic effects of globalization (sedentary, smoking, western diets) but we did not observe these behaviors. The purpose of this project was to expand our previous work by adding more explicit behavioral risk factor assessment.

Methods: Community based participatory research; a convenience sample of consecutive patients at four Central Kenyan clinics were screened for CV risk factors by trained US/Kenyan teams using evidence-based protocols. Clinical data were entered onto excel spreadsheets and imported into Stata[®] for analysis.

Results: 602 individuals (mean age 54 [\pm 17.5], 77% female, 92% black) were screened and found to have high rates of HTN (60%), DM (14.2%), and overweight (47%) Women were more likely to be overweight (53.6%, 29.3%; $p=0.000$) and have \uparrow waist circumference (60.8%, 14.3%). Older age (65+) was associated with \uparrow HTN (73.2%, 36.9%; $p=0.000$) and DM (23.6%, 13.7%; $p=0.02$). 60.4% had 2 or more risk factors. Individuals self-reported their health to be fair/poor (40%), engaged in vigorous physical activity ≥ 1 hr/day (87%), never/rarely drank soda (82%) and few smoked (7%).

Conclusions: Similar to US blacks, these Kenyan data demonstrate: high rates of CV risk factors; age and gender-related increase in risk; and multiple risk factor clustering however atherogenic health behaviors were not observed. More research is needed to understand the CV risk of Kenyans in order to develop culturally appropriate risk/treatment interventions.

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