Reviewer's report

Title: Prevalence of Prehypertension and its Relationship to Risk Factors for Cardiovascular Disease in Jamaica: Analysis from a Cross-Sectional Survey

Version: 2 Date: 2 February 2008

Reviewer: Itamar Grotto

Reviewer's report:

Major Compulsory Revisions

1. Since the prevalence of prehypertension is different among males and females, and the fact that other studies demonstrated different association between prehypertension and other cardiovascular risk factors among males and females, the all analyses should be repeated with sex stratification.

2. The results of table 5 should be included in new table 3 which will be sex stratified. Having one, two and 3+ additional risk factors could be one of the characteristics reported in table 3. The prevalence of these risk factors should also be adjusted, at least for age and reported table 4 (as independent variables of the multivariate analysis).

3. The multivariate analysis (table 4) should include other variables (other cardiovascular risk factors) and not just age and sex. It should include at least measures of obesity (such as BMI) as they are strongly associated with prehypertension.

Minor Essential Revisions

1. The methods of the logistic regression are not clear â## did the authors included all variables in the analysis in one step, or did they use a stepwise (forward or backward) method? â## This should be clarified.

2. Table 1a should be omitted â## table 1b is the important one.

3. The number of subjects in each age group should be given (this could be done in figure 1 or table 4).

4. The fact that the odds ratios in table 4 are adjusted should be mentioned in title (preferable)or footnote of table 5. The fact that hypertension was defined according to a single blood pressure measurement should be mentioned as one of the limitations of the study.

Discretionary Revisions

1. Add details on the multivariate analysis in the abstract (it is not mentioned in the methods).

2. I suggest mentioning one of the largest studies (in terms of population included, n=36,424), which was conducted in Israel and was recently published
The definition of prehypertension would be more accurate if it will be defined as "having either a systolic blood pressure of 120-139 mmHg and/or" (instead of only "or"). The same is true for the definition of Hypertension.

3. I would suggest looking specifically on subjects in the high range of prehypertension (systolic blood pressure of 130-139 mmHg and/or diastolic blood pressure of 85-89 mmHg).

4. I suggest calculating p-value for trend for the prevalence of prehypertension with in the different age groups (figure 1).

5. In table 3 I would suggest calculating rate ratios (RR) and 95% CI for each risk factor among prehypertensive and hypertensive groups, compared to the normotensive group.

6. If data on the level of physical activity is available it should be included in the analysis.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare I have no competing interests