Reviewer's report

Title: An International Comparative Study of Blood Pressure in Populations of European vs. African Descent

Version: 1 Date: 12 September 2004

Reviewer: Charles Agyemang

Reviewer's report:

General

The study used a standardized analysis strategy to examine prevalence estimates for 8 white and 3 black populations. The findings of the study are of great interest, however the authors need to consider the following comments

1. There is a clear heterogeneity in BP within both continental population groups as shown in table 1. However, if possible, statistical support of the findings (i.e., measures of the precision of the findings, e.g. SD or SEM) should be provided for all the systolic and diastolic blood pressures in table 1 to give readers proper comparative estimates.

2. Methods: The only study where the Dinamap 8100 monitor was used might be better omitted because the measurement method is different. These differences undermine the standardized analysis strategy used and comparisons made. The Dinamap 8100 device has not yet successfully been validated based on current international guidelines (the European Hypertension Society or British Hypertension Society or Association for the Advancement of Medical Instrument). In fact, the Dinamap 8100 device tends to provide higher systolic and lower diastolic blood pressure levels than mercury sphygmomanometer readings.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. In both table 1 and table 2 the authors have provided separate analyses for men and women but the number or percentage of men and women is not indicated anywhere in paper. Provision of this information will enhance data quality. This could be given in an appendix table.

2. Page 4. Introduction: Line 15. "We report here on the patterns of hypertension prevalence in a sample of such 4 surveys among blacks from Africa, the Caribbean and the USA..." The data show such 3 surveys among Africa origin populations (Nigeria, Jamaica and USA).

3. Page 5. Methods: Line 5-7. "We subsequently identified surveys on hypertension conducted since 1990 that were national in scope in North America and Europe." Appendix table shows that North American studies were conducted in 1988 to 1994 in USA and 1986-1992 in Canada.

4. Methods: Page 6; Line 1-2; Participation rates varied from 61% to 82%. The appendix table shows participation rate of 87.5% for England.
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Page 5. Line 4. change the word 'insure' to 'ensure'

2. Page 12. Line 7. change the word 'coudt' to 'could'

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

None