

Importance of Reporting Age-Adjusted Prevalence in Epidemiological Studies

Dear Editor,

We read the article titled “Prevalence, awareness and control of hypertension in estate workers in Malaysia”^[1] published in North American Journal of Medical Sciences 2011, Vol. 3, page 540–543 with great interest. The article was highly informative and useful. We thank the authors for highlighting the important issue of high burden of non-communicable diseases in an occupational group (estate workers).

However, we have several comments and observations regarding the interpretation of the findings of the study. Prevalence of hypertension differs across age groups and ethnicity. It would have been more appropriate,

if characteristics of respondents like age, ethnicity and duration of working in plantation were described in the results section. Without the information on age distribution of respondents, it is difficult to interpret the prevalence as higher or as lower than the general population. According to the 'National Health and Morbidity Survey' conducted in 2004,^[2] prevalence of hypertension ranges from 6.7% to 69.3% in different age groups and also differs widely across ethnic groups. Hence, age-adjusted prevalence should have been calculated to compare the study findings with the national survey.

A significant difference in the prevalence of hypertension between males (27.65%) and females (26.07%) ($P=0.006$) was reported by the authors, and also they have reported the P value calculated by comparing males and females across three different groups based on blood pressure levels [Table 2 in the article]. Extrapolating the results of test of significance from sub group analysis to target population, without correcting for multiple comparisons can be a source of potential bias. Authors should have computed P value separately for male and females and then proceeded with a subgroup analysis or *post hoc* analysis by comparing prevalence of hypertension in males and females across different categories.

Family history of hypertension was reported by 255 respondents. It would have been more informative, if authors had reported the differential proportion of hypertensive and non-hypertensive respondents who had a family history of hypertension.

In conclusion, the age structure of the study population needs to be factored in while making comparison with the national population.

**Palanivel Chinnakali, Kapil Yadav¹,
Arvind Kumar Singh²**

Department of Community Medicine, Indira Gandhi Medical College and Research Institute, Puducherry,

¹Public Health Consultant, New Delhi, ²Centre for Community Medicine, Old OT Block, All India Institute of Medical Sciences, New Delhi, India. E-mail: palaniccm@gmail.com

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