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Cardiovascular risk among urban Aboriginal people

Zhiqiang Wang,* Wendy E. Hoy†

* Senior Research Fellow, † Professor, Centre for Chronic Disease, School of Medicine, University of Queensland, Herston, QLD.

TO THE EDITOR: In a recent article, Thompson and colleagues provided useful information on the prevalence of cardiovascular risk factors in urban Aboriginal people.¹ Using the Sheffield table of absolute risk,² the authors estimated that “15% men and 6% women had an absolute risk > 15% of a cardiovascular event within 10 years”.

The Sheffield risk table was developed for assessing the risk of coronary deaths rather than the risk of cardiovascular events.² Moreover, the validity of applying the Sheffield table and other risk assessment tools based on the Framingham risk functions to Aboriginal people is yet to be assessed. The lower risk estimate in women reported by Thompson and colleagues may simply reflect the higher cholesterol concentration cut-offs for women in the Sheffield table.

The true risk difference between sexes in Aboriginal people may not be as dramatic as Thompson and colleagues suggest. Firstly, data in Box 1 of their article show that there was little difference between men and women as regards past history of cardiovascular disease.

Secondly, Aboriginal women experience a higher prevalence than men of some cardiovascular risk factors such as diabetes,^{1, 3} abnormal HDL cholesterol level and overweight.³

Thirdly, our own research suggests that there may be a substantial difference between estimated and observed risks. Using data from a cross-sectional study of 681 Australian Aboriginal people in a remote community,³ we performed a similar analysis to that of Thompson et al. Based on the Framingham functions,⁴ we estimated that 10-year risks of coronary heart disease for women were much lower than those for men in all age groups (a finding similar to that of Thompson and colleagues).

Incidence rates per 1000 person-years of coronary heart disease (95% CI), by age and sex (based on a cohort study of 838 Aboriginal people in a remote community)

Age (years)	Women	Men
20–34	4.1 (1.8–9.1)	3.2 (1.4–7.0)
35–44	15.6 (9.4–25.9)	8.6 (4.5–16.5)
45–54	19.3 (10.9–33.9)	26.5 (15.0–46.7)
≥55	50.2 (32.4–77.9)	31.9 (16.6–61.2)

However, in a related study of the same Aboriginal community (as yet unpublished), when we analysed cohort data from 838 participants with 13 years of follow-up, the observed coronary disease rates for women were as high as those for men (Box).

The discrepancy we found between estimated and observed risks is a warning that researchers and clinicians need to be cautious when applying existing risk assessment tools to Aboriginal people.

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3. Wang Z, Hoy W. Hypertension, dyslipidemia, body mass index, diabetes and smoking status in Aboriginal Australians in a remote community. *Ethn Dis* 2003; 13: 324-330.
4. Anderson KM, Odell PM, Wilson PW, Kannel WB. Cardiovascular disease risk profiles. *Am Heart J* 1991; 121(1 Pt 2): 293-298.