the ADA also carries out dental practice surveys to determine the costs of private dental practices and the productivity of dentists in the private and government sectors. For example, in 1997, self-employed general practitioners averaged about 58 patient appointments per week, which was equivalent to 2,550 patient appointments per year with about 2.1 visits each for the 1,200 different patients seen.<sup>4</sup>

Many groups in the community, such as the elderly, those living in institutions, the rural disadvantaged, socially disadvantaged, the disabled, Aboriginal and Torres Strait Islander people, refugees, and migrants, have special dental needs. To meet these needs, dental services must be expanded and be provided by a more appropriately trained dental health workforce in both the private and government sectors. The NSW Department of Health, universities, and TAFE colleges can provide such training,

which should include a focus on population health issues and the needs of special groups.

#### REFERENCES

- Barnard PD. Facts and Figures in Australian Dentistry 1988.
  Sydney: Australian Dental Association Inc, 1989.
- Australian Dental Association (NSW Branch). Dental manpower statistics as at July 1998. Sydney: Dental Health Education and Research Committee, 1998.
- 3. Szuster FSP, Spencer AJ. *Dental practitioner statistics Australia, 1994.* Dental Statistics and Research Series, No. 11, AIHW, University of Adelaide, 1997.
- 4. Barnard PD, White J, Australian dental practice survey 1997. Third report. *Australian Dental Association News Bulletin* 1999; 266: 13-21.
- Szuster FSP, Spencer AJ. Dental hygienist labourforce Australia, 1996. Dental Statistics and Research Series, No. 12, AIHW, University of Adelaide, 1997.

# LETTERS TO THE EDITOR

### DEAR EDITOR,

I thank the reviewers for their comments on my article (Volume 10, Number 3), and the NSW Public Health Bulletin for the opportunity to reply to those comments.

In their review of the principal academic references that suggest a link between periodontal disease and preterm birth, Drs Roberts and Algert state '...the Offenbacher article provides only weak evidence, if any, of a causal association between periodontal disease and preterm birth...' and that '...what the study literally shows is a very strong association between PLBW and a variable the authors have created...'

Firstly, this study can only establish an association. Evidence for causation would come from a prospective controlled clinical trial. This would entail periodontal treatment of many women, since preterm delivery is a relatively rare and unpredictable event. However, it is appropriate to establish an association before embarking upon a periodontal intervention study.

The reviewers sought an explanation of the variable used. The yes/no variable that was created involves clinical attachment loss (CAL). The 'yes' category applies to women with CAL of +3mm affecting 60 per cent or more of their dentition. The authors observe, correctly, that mean measures of CAL are often insensitive. They then create a variable that limits the effect of insensitivity. The 'yes' level of CAL is likely to be a true positive observation of severe periodontal disease. A strong association is shown between severe periodontal disease in a particular population and preterm delivery. Investigations to define risk groups and establish causality would be helpful.

In their review of the principal academic references that suggest a link between cardiovascular disease (CVD) and oral health, Professor Tofler and Dr Kull reviewed papers reporting on the link between periodontal disease and CVD in larger populations. I agree with their comments that strong associations exist between periodontal disease and CVD and that further studies are warranted to investigate the effect of treatment interventions.

#### Barbara Anne Taylor

Head, Department of Periodontics United Dental Hospital of Sydney, Surry Hills

## DEAR EDITOR.

Professor Tofler and Dr Kull rightly detail, in their comprehensive review of the putative association between periodontal and cardiovascular disease,1 the potential confounders which compromise the epidemiological evidence demonstrating the link between periodontal disease and CVD, including the risk factors that operate in both diseases, such as age, cigarette smoking and diabetes; and social factors which may be active in both diseases. However, as they pointed out, such confounders were adjusted for and still statistically significant associations were found between the two diseases.<sup>2</sup> As they admitted, in theory, there are 'compelling biological links' between the proinflammatory effects of periodontal infection and the resultant CVD. However, randomised clinical trials would be close to impossible to construct, and the objective evidence linking the two diseases is most likely to come from strongly controlled epidemiological studies, as did

Vol. 10 No. 8 107