

## LETTER TO THE EDITOR

### A scope of practice comparison of two models of public oral health services for Aboriginal people living in rural and remote communities

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**Dear Editor**

Following publication of our study comparing the costs of two models of care intended for rural Aboriginal communities in New South Wales, Australia<sup>1</sup>, we have analysed the data comparing scope of practice between the two models. By way of background, Aboriginal people are less likely to access dental services than other Australians<sup>2-4</sup>. It is well established in the literature that enhancing access to and use of services by Aboriginal Australians requires tailoring to local needs, customs and language; ensuring staff are culturally competent; and having explicit strategies to promote and sustain participation<sup>2-7</sup>.

Our retrospective study of 2 years of patient data compared two models of service delivery designed exclusively for Aboriginal people. Model A (fly in, fly out) included a fixed clinic in a major city and visiting services to rural areas. Model B (community based) located clinicians within rural communities and existing community facilities (health clinics, schools, Aboriginal health services). We previously reported the cost and outputs comparison, which found model B provided 47% more treatment at 25.2% of the cost<sup>1</sup>. We are now reporting on the scope of practice differences between the two models. Scope of practice has been selected as a proxy for effectiveness because treatment that requires several service visits over time enables behavioural change and implies patient engagement in the service<sup>8,9</sup>.

This study compared the scope of practice, measured in grouped dental item numbers using the Australian Dental Association schedule of services, for the two models. De-identified patient dental item numbers for models A and B related to the provision of dental services to Aboriginal public patients were clustered according to typical service groupings and analysed for the period 1 January 2014 to 31 December 2015. Data were recorded for nine clusters of care as shown in Table 1.

There were marked differences in the clusters of treatment for the models over the 2-year data collection period. Model A is more focused on complex clinical care while model B has a higher

proportion of preventive care items (Table 1). For example, practitioners involved in model A performed 61.6% of endodontic care performed in the cohort, 81.2% of crowns and bridges, 64.5% of denture care and 88.8% of denture maintenance. The proportions for model B for these items were 38.4%, 18.8%, 35.5% and 11.2%, respectively. The patients in model B received almost double the proportion of preventive care items than those in model A (64.4% v 35.6%) and also received a much greater proportion of emergency care (65.3% v 34.7%).

There are at least three possible explanations for the greater proportion of preventive services delivered by model B. First, the care was provided by a combination of newly graduated oral health therapists and dentists with a specific focus on prevention and early intervention. This could explain the greater use of preventative care items than the fly in, fly out team. Second, the provision of dental care, especially preventive care, requires a relationship of trust between the patient and provider. This is particularly important in Aboriginal communities, where there is a limited choice of providers. Trust is difficult to build with a fly in, fly out service as different providers may visit each time or the visits are sporadic.

Third, model B involved practitioners based within the region, enabling the same individual practitioners to deliver services on a regular basis. The rapport built up by this regular presence is likely to have established a level of trust such that, when the emergency and acute dental treatment needs of patients were met, they were willing to come back for follow-up care. In addition, model B employed local Aboriginal staff in administrative and dental assisting roles which was likely to enhance both trust and the cultural competence of the service.

Aboriginal people have twice the rate of untreated dental caries compared with other Australians<sup>3</sup>. Preventive care services are therefore a very important aspect of oral health care<sup>7,8</sup>. Model B provides a greater level of preventive care and other ongoing services, which may be attributed to the community-based approach.

**Table 1: Clusters of treatments and number and percentage by service model**

Treatment visit clusters	Model A		Model B	
	n	%	n	%
Total number of visits	12 471		19 437	
Cluster 1		35.6		64.4
Examinations	2246		3737	
Dental prophylaxis and bleaching	1106		1207	
Periodontics	326		455	
Radiological examination and interpretation	2800		3571	
Remineralisation agents	401		2856	
Other preventive services	1160		2818	
Other diagnostic services	133		157	
Cluster 2		48.3		51.7
Adhesive restorations – anterior teeth – direct	714		684	
Adhesive restorations – posterior teeth – direct	998		1188	
Metallic restorations – direct	214		145	
Metallic restorations – indirect	1		3	
Tooth-coloured restorations – indirect	0		1	
Other restorative services	594		673	
Cluster 3		61.6		38.4
Pulp and root canal treatments	307		238	
Other endodontic services	114		42	
Provisional crown and bridge	35		4	
Cluster 4		81.2		18.8
Bridges	1		4	
Crowns	26		4	
Crown and bridge repairs and other services	12		1	
Cluster 5		57.8		42.2
Surgery for prostheses	0		1	
Surgical extractions	112		81	
Other surgical procedures	3		2	
Cluster 6		64.5		35.5
Dentures and denture components	213		121	
Occlusal therapy	19		11	
Other prosthodontic services	34		15	
Removable appliances	1		0	
Cluster 7		88.8		11.2
Denture maintenance	79		16	
Denture repairs	64		2	
Cluster 8		63.6		36.4
Miscellaneous	21		12	
Cluster 9		34.7		65.3
Emergencies	1		13	
Treatment of maxillofacial injuries	0		0	
Drug therapy	234		173	
Anaesthesia, sedation and relaxation therapy	21		13	
Extractions	480		1187	
General surgical	1		2	

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