Planning integrated outreach: service patterns from the metropolitan and rural hubs

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Study question

In Australia, outreach is a key strategy to promote access to medical specialist services to residents in rural and remote areas. Around one in five Australian medical specialists participates in rural outreach work and there is some evidence that outreach varies according to specialist location. However we lack systematic information to more explicitly describe service distribution and models of outreach by metropolitan and rural-based specialists.

Methods

Data about specialist doctors who provided rural outreach services (up to three) as part of the MABEL (Medicine in Australia: Balancing Employment and Life) study, 2008. The straight-line distance between residence and outreach location was calculated. Five outreach models were defined (drive-in, drive-out; fly-in, fly-out; hub and spoke; multiple distant; and mixed) as a combination of the distance travelled (<300km or >300km) and the number of rural locations visited (one or two or more). Logistic regression tested the association between specialist base location, service patterns and models of outreach.

Findings

Of 4,596 specialists, 902 who provided a total of 1401 rural outreach services were included in this analysis. Less than half of all services (42%) were provided to outer regional/ remote locations, associated with rural specialists. The most prevalent outreach models were drive-in, drive-out (n=379, 42%), fly-in, fly-out (n=168, 20%) and hub and spoke (n=183, 19%). Metropolitan specialists were significantly more likely to provide fly-in, fly-out (OR 4.15, 2.32-7.42) or multiple distant (OR 3.60, 1.79-7.24) and less likely to provide outreach via hub and spoke models (OR 0.31, 0.21-0.46).

Limitations

This paper is limited to the spatial dimension of accessibility (locations visited), not the frequency of visits nor the nature or quality of the outreach work. The 300km cut-off for local travel may not sensitively reflect the size of regional boundaries in areas of low population density. However the straight line distance measure over-estimates the proportion of services within 300km travel.

What this study adds to current knowledge

The present study is the first national-level systematic study showing that specialists travelling different locations have different service distribution and models of practice. The most common model of practice is to visit one nearby town (drive-in, drive-out). Metropolitan specialists can provide more long distance services, more likely to bypass regional boundaries.

Implications and recommendations

Careful planning is needed to promote integrated and accessible services by specialists travelling from different hubs. Specific actions include: 1) developing a clear vision across different regions, about the role of the outreach healthcare model and the contribution that will be made by rural-based specialists (from the rural hub); 2) developing and maintaining a register of outreach service activity across each region to enable easy tracking; 3) purposefully structuring service configurations to promote the integration of metropolitan-based services, particularly in regions that are more reliant on fly-in, fly-out models; 4) employing regional outreach coordinators to manage service brokering to: a) link services to need (acknowledging that most specialists only visit one location), b) foster up or down scaling of services and c) proactively link services coming from different locations to enable professional development and co-practice opportunities.

Presenter

Belinda O'Sullivan is a PhD candidate, supporting the rural health research theme with the Medicine in Australia: Balancing Employment and Life Survey (MABEL), a large longitudinal survey of Australian doctors. Her research aims to inform policy and planning of rural outreach services by specialist doctors by using information about current practice across Australia. Belinda has over ten years' experience in health workforce capacity building and program evaluation. She has also worked in applied public health practice and research with the New South Wales Ministry of Health and is a graduate of the NSW Public Health Officer Training Program. Throughout her career, Belinda has worked in a range of rural and remote locations, to undertake clinical work as a physiotherapist as well as public health projects. She is currently located in the School of Rural Health, Bendigo, Victoria.