

# Constructing Rural General Practice Communities

*Martin London<sup>1</sup> and Chris Skelly<sup>2</sup>*

<sup>1</sup>Director, National Centre for Rural Health, Christchurch  
P.O. Box 4345  
CHRISTCHURCH  
Phone: 03-364 1565  
Fax 03-364 0451

<sup>2</sup>Public Health Intelligence, Public Health Directorate, Ministry of Health, Wellington, New Zealand

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## ABSTRACT

We have built a spatial model defining communities of rural General Practitioners in New Zealand.

Termed 'Shared Roster Areas' these communities identify the most reproducible base populations relating to local general practice services. The interdependence of practitioners sharing the on-call responsibilities for these areas means that the overall stability of rural workforce and service provision for a particular shared roster area will be largely independent of that for adjacent areas.

The process for defining these communities began with a survey of all rural practices asking for the name and area of the locality that they covered when on-call and the names of the other practices sharing their roster. This information was used as the basis for drawing boundaries on a map of New Zealand making 'best guesses' according to social and physical geographic features. The boundaries were refined when consulting rural practitioners and rural health directors at opportunistic meetings. This data was then processed very crudely and quickly by a screen digitising process using ArcView. There was an immediate need - one very simple goal. Digitise these communities so that we could extract census data for each area.

We found that:

1. there are interesting and as yet unexplained inconsistencies between these communities, as defined by local practitioners and the medical register database definition of who is working in a rural area,
2. the population size estimated locally as being served by the practice and that which is extracted from the 1996 census differs significantly in some areas
3. although these communities are not contiguous, they do appear to capture the bulk of the rural population
4. with some regional variations, they provide an interesting 'community of interest' division below the level of District Health Boards.

These Shared Roster Areas provide a valuable framework and database for:

- evaluating fluctuations in the rural health workforce,
- monitoring adequacy of primary health service provision
- providing contacts and population cells for other rural health research.