Original Scientific Paper

Rural general practitioners in New Zealand:

November 1999 census

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ABSTRACT

Aim

To take a census of the rural general practitioner (GP) workforce in New Zealand (NZ) in November 1999, including number of practices and rural localities.

Methods

The adoption of the Rural Ranking Scale (RRS) in 1999 created a definition of a 'rural GP', which enabled this census to be undertaken. Rural GPs were identified through phone books, the Rural GP Network (RGPN) and The Royal New Zealand College of General Practitioners (RNZCGP) databases, and personal networking. Working definitions of a 'rural GP' included locums present for more than one month, a 'practice' as a group of doctors working from the same address, and a 'rural locality' as a geographic region where rural GPs shared an on-call roster.

Results

Four hundred and sixty-nine rural GPs were identified, working out of a total of 220 practices in 142 rural localities. Two hundred and eighty-nine (62%) practised on the North Island (NI; Northern – 104, Midland – 128, Central – 57), while 180 (38%) practised on the South Island (SI). Seventy-eight per cent of rural GPs were members of the RNZCGP, while only 29% belonged to the RGPN. Of the 59 SI rural localities, 38 had <3 GPs. Of the 83 NI localities, 35 had <3 GPs. Three localities on the SI and two on the NI had more than 10 GPs.

Conclusion

This is the first census of NZ rural GPs, and it contains the most accurate information to date on numbers of rural GPs, practices and localities. There may always be difficulties with some definitions, disputed RRS scores, and changing on-call rosters including changes in areas covered by rosters. Notwithstanding these difficulties, these results provide important data to assist in tackling the current concerns about rural health care delivery, and will hopefully facilitate progress with much needed rural research.

(NZFP 2001; 28:244–249)

Introduction

NZ rural GPs are under increasing stress[1] and have more job dissatisfaction than their urban colleagues.[2] The main problem is a shortage of GPs trained and willing to work in rural areas. For those rural GPs who remain, this means a greater day-to-day workload, more nights and weekends on-call, and an inability to get locums for holiday and education leave.[3] The solutions to improve the situation have been described,[4-6] however Government has been slow and selective in implementing recommendations.

NZ needs accurate information about the state of the rural workforce with which to plan policy. In 1999 there was no accurate database of NZ rural GPs as the medical workforce (including rural GPs) had been left to 'market forces' for the past decade, and there was no agreed definition of a 'rural GP'. Fee-for-service GPs in historically recognised rural areas had been allowed to claim an additional 10% (the 'rural bonus') on top of the general medical services they billed Health Benefits. However, through urban population growth, some of these areas had become semi-rural or even suburban.

In November 1999, the NZ Health Funding Authority (HFA) adopted the Rural Ranking Scale (Appendix

1) to define a 'rural GP' for the purpose of allocating rural bonus payments.[7] The greater the GP's RRS score, the larger the rural bonus payment. Given the recruitment and retention problems in NZ rural General Practice, an accurate picture of the number and location of rural GPs in NZ was needed. With a definition of a 'rural GP' now decided, a census of NZ rural GPs was undertaken in November 1999.

Methods

A score of 35 points or greater on the RRS (Appendix 1) defined a 'rural GP' for the purpose of this census. The names and contact details of rural GPs were compiled from information obtained from NZ telephone books, the NZ Rural GP Network (RGPN), The Royal New Zealand College of General Practitioners (RNZCGP) and the personal networking of the authors. Sections of this initial database were then circulated to rural GPs in all regions of NZ to check for accuracy and completeness. In November 1999, as the final step before the database was analysed, practices whose information had been obtained from outside sources were telephoned to ensure accuracy.

Short-term locums (<1 month) were not recorded in the database; instead the doctor they were relieving was recorded. Long-term (>1 month) locums (e.g. for sabbaticals, maternity leave or for those practices short of doctors) were recorded in the database instead of the doctor on leave. Part-time rural GPs who worked regular hours in a practice were also included in the database. A 'practice' was defined as a group of one or more doctors working from the same address, and a 'rural locality' as a geographic region where rural GPs shared an on-call roster.

Rural Ranking Scale scores: Individual scores for rural GPs were obtained from the Health Funding Authority for those that applied for a rural bonus payment. Some rural GPs did not qualify for a 'rural bonus' payment as they were paid by mechanisms other than fee-for-service (e.g. capitation or salary). RRS scores for these GPs were obtained from either the RNZCGP or the GPs themselves. For a small number of rural GPs (<10%), their RRS score was estimated from those of rural GPs in their area.

Results

Table 1 summarises information about the 469 rural GPs practising in NZ in November 1999. The majority of rural GPs, 289 (62%), were practising on the North Island, while the South Island had 180 (38%). Within the North Island there were 104 rural GPs in the Northern region, 128 in Midlands, and 57 in Central (which included the GP on the Chatham Islands). Seventy-eight per cent of rural GPs belonged to the RNZCGP, while 29% were members of the RGPN. Figure 1 shows the distribution of rural GPs according to RRS scores for both islands. Those scoring 35 to 45 points made up 54% of rural GPs on the North Island and 49% of those on the South Island.

Table 2 shows the number of rural localities on the North and South Islands according to the number of GPs per locality. Out of 59 localities on the South Island, 38 had fewer than three GPs, a critical number for the stress of on-call. Two South Island localities were currently without a GP (Roxborough, Whataroa), 17 had a solo GP, and 19 had only two GPs. While the North Island had more localities (n=83), it had about the same number of localities with fewer than three GPs (n=35). South Island rural areas with 10 or more GPs included Motueka (n=12), Queenstown (n=15), and Oamaru (n=15), while the North Island had Dargaville (n=12) and Kaitaia (n=10).

Key points

- This is the first census of New Zealand rural GPs, and provides an important initial benchmark from which further needed research can occur.
- The 'Rural Ranking Scale' (see Appendix 1) provided the definition of a 'rural GP' for this study.
- Of the 469 rural GPs in the census, 289 (62%) were practising on the North Island, while 180 (38%) were practising on the South Island.
- Although the North Island had more rural localities than the South Island, they each had similar numbers of localities with fewer than three GPs: North Island – 35; South Island – 38.
- Seventy-eight per cent of rural GPs were members of the RNZCGP.

Table 1. Island location and memberships of NZ rural GPs

	South Island	North Island	New Zealand
Total GPs	180 (38%)	289 (62%)	469 (100%)
RNZCGP:			
Fellows*	69	122	191
Associate†	49	83	132
Members‡	24	18	42
Total	142	223	365 (78%)
RGP Network	73	61	133 (29%)

* have completed advanced vocational training
† undergoing advanced vocational training
‡ financial members who are not Associates or Fellows

Table 2. Number of rural localities on the North and South Islands according to the number of GPs per locality

			North Island regions		
GPs/locality	South Island	North Island	Northern	Midlands	Central
0	2	0	0	0	0
1	17	20	4	7	9
2	19	15	2	8	5
3	6	15	5	7	3
4	5	10	1	8	1
5	1	5	3	1	1
6	4	7	2	3	2
7	1	5	2	3	0
8	0	4	2	1	1
9	1	0	0	0	0
10	0	2	2	0	0
12	1	0	0	0	0
15	2	0	0	0	0
TOTAL	**59**	**83**	**23**	**38**	**22**

Table 3. Number of rural localities on the North and South Islands according to the number of practices per locality.

			North Island regions		
Practices/locality	South Island	North Island	Northern	Midlands	Central
1	47	52	13	24	15
2	5	18	5	9	4
3	4	8	4	3	1
4	1	3	1	1	1
5	1	1	0	1	0
6	0	1	0	0	1
7	1	0	0	0	0
TOTAL	**59**	**83**	**23**	**38**	**22**

Table 3 shows the number of rural localities on the North and South Islands according to the number of practices per locality. In 47 out of the 59 localities on the South Island the GPs all worked from the same practice, while on the North Island this occurred in 52 of 83 localities. There were a total of 220 separate rural practices: Northern–39; Midlands–60; Central–36; South Island–85.

Discussion

This is the first census of NZ rural GPs and was facilitated by an agreed definition of a 'rural GP' (Appendix 1). Similar to NZ's overall population, there were many more rural GPs on the North Island (n=289) than on the South Island (n=180), however, both Islands had similar numbers of rural localities with fewer than three doctors. While rural GPs on both islands face the challenges of providing rural primary care, many more North Island rural GPs have practices with significant numbers of both Maori and people on low incomes,[8] two groups with recognised additional health needs.[9]

While both Australia and NZ have rural populations that are about one quarter of their total population, Australia has been studying and working on the problems related to rural health care delivery for well over 10 years.[10-14] Each state has a government-funded agency whose job is to maintain a database of rural GPs, to support rural GPs, and to do research on rural General Practice and rural health. Information gleaned from these studies has had a substantial influence on workforce policy and training programmes.[14] New Zealand is at an embryonic stage of researching and supporting rural General Practice compared to Australia.

The HFA's use of 35 points or more on the RRS as the definition of a 'rural GP' has not pleased everyone. The RGPN argued strongly for a 30 point cut-off. Since the implementation of the RRS, other problems have come to light. While some GPs close to large urban areas have accepted the loss of their 'rural bonus' payment, others feel strongly that they are still rural GPs and the RRS does not fairly categorise them. Some rural GPs in areas with high percentages of community services cardholders have found themselves financially disadvantaged by the new payment system, despite scoring as high as 80 points in one case. As there is no pro-rating of the rural bonus payment, part-time GPs may earn virtually the same rural bonus payment as full-time GPs in the same locality. These inequities need to be corrected.

Other definitions were also problematic. 'Rural localities' were defined by the GP on-call arrangement, but there was a variety of ways in which out of hours on-call were covered. While by far the majority was a simple sharing of on-call between GPs in a town, some localities had nurses taking call, others had separate arrangements for weekdays as opposed to weekends, while others had regular locums to help with on-call. While a 'practice' was defined as a group of GPs working from the same location, there were at least two localities where GPs worked from the same facility but considered their practices as completely separate.

Even with these definition problems, this census provides an important initial benchmark from which further much needed research can occur (e.g. "How many rural GPs does NZ need?" or, "How best to recruit and retain them?"). The census also provides a benchmark for monitoring fluctuations in the rural workforce in response to rural health policies. It needs to be pointed out, however, that this census does not identify the localities where additional rural GPs are required. While taking a census of existing rural GPs is an important initial step, repeating the exercise on a regular basis to examine for changes is even more important.

Acknowledgements

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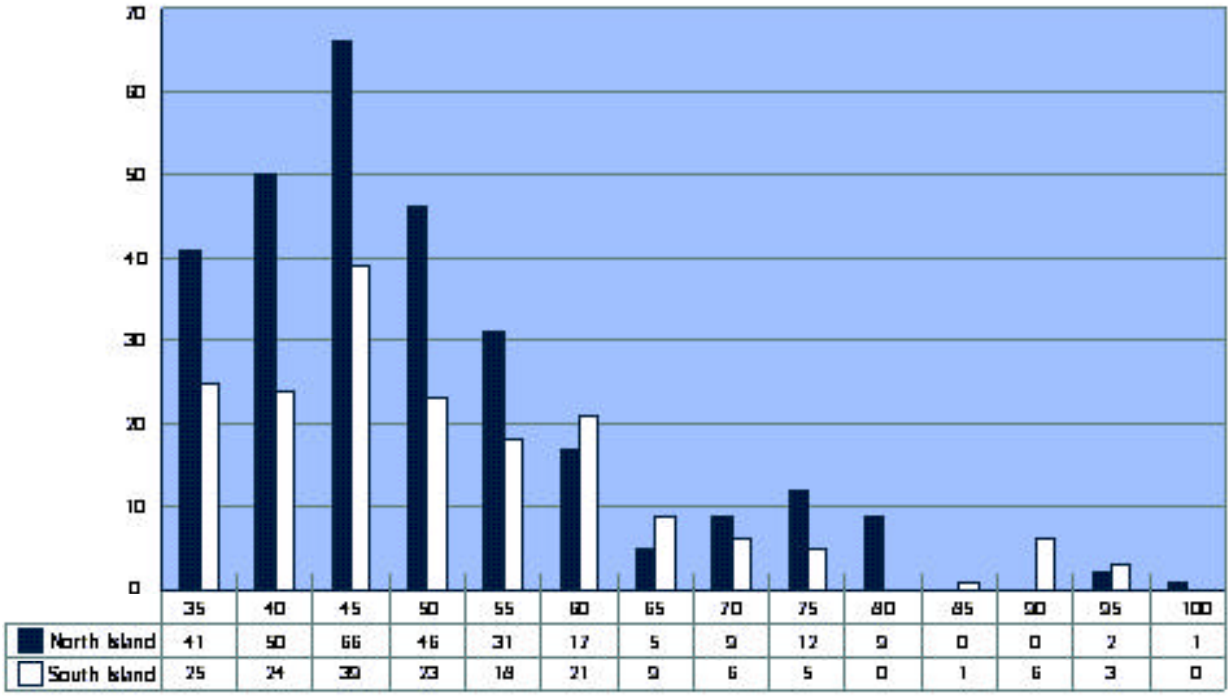
Figure 1. Rural Ranking Scale scores for North and South Island rural GPs



	35	40	45	50	55	60	65	70	75	80	85	90	95	100
North Island	41	50	66	46	31	17	5	9	12	9	0	0	2	1
South Island	25	24	30	23	18	21	9	6	5	0	1	6	3	0

Appendix 1. Rural Ranking Scale [7]

- Please ring the number of points you are claiming under each heading.
- Read the definitions with each section.
- Note that all travelling times refer to one-way journeys by car in normal daytime conditions travelling within speed limits.

1. Travelling time from the surgery to major hospital: *See below for a list of cities with major hospitals.*

Major hospital within 30 minutes **0**
Major hospital within 30–45 minutes **5**
Major hospital within 45–60 minutes **10**
Major hospital within 60–90 minutes **15**
No major hospital within 90 minutes **20**

Distance from surgery to major hospital (km) _____

Major hospitals:	
Northern region:	Auckland, Whangarei
Midland region:	Hamilton, Rotorua, Tauranga, New Plymouth, Whakatane
Central region:	Wellington, Upper Hutt, Palmerston North, Hastings, Wanganui, Masterton, Gisborne
Southern region:	Invercargill, Dunedin, Timaru, Christchurch, Ashburton, Nelson, Blenheim, Greymouth

2. On-call duty:

- The on-call duty is calculated on the number of GPs available to take part in an on-call roster. This does not include bonafide locums.
- In a town where there is more than one on-call roster the total number of GPs in the town is the number available to take part in a roster. For example a town with two practices, one with three doctors doing a 1 in 3 roster and another practice with two doctors doing a 1 in 2 roster, the total number of GPs available to take part in an on-call service is five.
- If GPs agree that a colleague need not do call because of poor health, that GP is considered as not being available to take part in the on-call roster.

1 in 6	**10**
1 in 5	**10**
1 in 4	**10**
1 in 3	**20**
1 in 2	**30**
1 in 1	**40**

3. On-call for major trauma: *This item reflects the back-up available for rural GPs in emergencies and the likelihood that one may need to accompany the ambulance.*

Not on-call for major trauma **0**
On-call, but with double-crewed road ambulance with at least one paramedic (at all times) available within 30 minutes **5**
On-call, with other ambulance arrangements **15**

4. Travelling time from surgery to nearest GP colleague:

This includes partners in your own practice and other GPs in your town.

0–15 minutes	**0**
15–60 minutes	**5**
over 60 minutes	**10**

Distance to nearest GP colleague at work (km) _____

5. Travel time to most distant practice boundary:

You must be the CLOSEST doctor to that boundary, but you may include the area covered when on-call.

less than 30 minutes	**0**
30–60 minutes	**5**
over 60 minutes	**10**

6. Regular (at least once monthly) peripheral clinics:

This item has been included to recognise increased costs of running peripheral clinics away from the base surgery.

No	**0**
Yes	**5**

TOTAL POINTS: _____

References

1. Jenkins D. Burnout in rural general practitioners. NZ Med J 1998; 111:328.
2. Dowell AC, Hamilton S, McLeod DK. Job satisfaction, psychological morbidity and job stress among New Zealand general practitioners. NZ Med J 2000; 113:269–72.
3. Burton J. Difficulties encountered in rural General Practice in New Zealand. NZ Fam Physician 1997; December: 41–44.
4. Burton J. Rural health care in New Zealand – RNZCGP recommendations. Occasional Paper Number 4. Wellington: The Royal New Zealand College of General Practitioners, May 1999.
5. Janes RD. Benign neglect of rural health: is positive change on its way? NZ Fam Physician 26(1):20–2, 1999.
6. Rural General Practice Network. Recommendations for recruiting and retaining doctors to work in rural New Zealand. Rural General Practice Network (Inc), Christchurch, March 2001.
7. Health Funding Authority. Variation of Advice Notice Pursuant to Section 51 of the Health and Disability Services Act 1993 (Schedule 2, Appendix 11). Wellington, NZ, 1999.
8. Minister of Health. Rural health policy: meeting the needs of rural communities. Wellington: Ministry of Health, July 1999.
9. Minister of Health. The Primary health care Strategy. Wellington: Ministry of Health, February 2001.
10. Kamien M. Report of the ministerial inquiry into the recruitment and retention of country doctors in Western Australia. University of Western Australia Department of Community Practice, 1987.
11. Wise A, Hays R, Craig M, et al. Vocational training and continuing education for the rural medical practitioner. University of Queensland Postgraduate Medical Education Committee, 1992.
12. Strasser R. Rural General Practice in Victoria: A study of the attitudes of Victorian rural general practitioners to country practice and training. Monash University Department of Community Medicine, 1992.
13. South Australian Health Commission, Royal Australian College of General Practitioners (SA), Australian Medical Association (SA). Review of general medical practice in South Australia; Third Report: country General Practice. South Australia Health Commission, 1992.
14. Strasser R, Kamien M, Hays R. National Rural General Practice Study. Monash University Centre for Rural Health, 1997.