Rural and Remote Health

ISSN 1445-6354

The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy

ORIGINAL RESEARCH

Rural GPs' ratings of initiatives designed to improve rural medical workforce recruitment and retention

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Submitted: *23 June 2004;* ***Revised:*** *16 August 2004;* ***Published:*** *23 August 2004*

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Rural and Remote Health **4 (online), 2004: no 314**

Available from: http://rrh.deakin.edu.au

ABSTRACT

Introduction: Since the early 1990s, Australian governments have recognised the problems of rural medical workforce recruitment and retention and have implemented a range of programs and incentives designed to improve the supply of, and access to, doctors in rural and remote areas. Some incentives involve differential payments according to degree of rurality or remoteness. Since these programs involve considerable costs to governments, some assessment of their impact on recruitment or retention is warranted. The objective of this study is to examine the effectiveness of different recruitment and retention incentives from the perspective of the rural GP. Doctors practising in rural and remote communities were, therefore, asked to rank the relative importance of different interventions in terms of their impact on recruitment to and retention of GPs in their communities.

Methods: Six possible interventions were selected to cover the major objectives underpinning rural workforce programs most relevant to doctors currently in rural practice. Respondents assigned a rank to indicate the relative importance of each item with respect to each of the two questions: "What would help most to attract more GPs to this community?" and "What would help most to retain GPs in this community?" The data were collected as part of a national study into the viability of rural general practice undertaken jointly by the Rural Doctors Association of Australia and Monash University School of Rural Health Bendigo. The Rural, Remote and Metropolitan Areas (RRMA) classification was used as the rurality indicator. Analysis involved the calculation of mean ranks for each item. Item means were then ranked to indicate most to least important items in total, and within each RRMA category.

Results: Thirty-five percent of all GPs practising in rural and remote Australia responded to the national survey, representing 53% of all practices in those areas. Of these, 1050 doctors who nominated themselves as a principal, partner or associate in their practice were eligible for inclusion in this analysis. The results showed a high degree of agreement in the responses to both questions, with the possible interventions being ranked in the same overall order. 'Better remuneration for Medicare consultations' and 'Improved

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after-hours and on-call arrangements' were ranked as the most important interventions for both attracting and retaining GPs, whereas 'Better education and professional support activity' and 'Improved availability of allied health professional services' were ranked as least important of the options presented. 'Better locum availability' and 'Capital funding to improve practice infrastructure/enable GPs to set up practice' ranked in between. Results within each RRMA category were very similar to the overall rankings, confirming the significance of the improved remuneration and workload arrangements, regardless of geographical location.

Conclusions: Ensuring professional support, workforce supply, income and infrastructure support are all relevant to the recruitment and retention of GPs in rural and remote areas. However, from the perspective of GPs practising in such areas, specific initiatives that increase the core income of rural practices, and which address those medical workforce supply issues which impact most on workload, are considered those which are most likely to assist in the recruitment and retention of GPs to Australia's rural and remote communities.

Keywords: Australia, general practice, recruitment, retention workforce.

Introduction

Problems associated with recruiting and retaining doctors in non-metropolitan areas have been acknowledged by governments in Australia, the US, Canada and elsewhere as a continuing concern[1,2]. Since the early 1990s, the Australian government has introduced a range of initiatives designed to improve the supply of, and access to, doctors in rural areas[3-6].

These initiatives, however, have not resulted from any comprehensive or system-wide analysis of the problem of medical workforce supply and distribution. Rather, they have largely been a response to numerous reports into particular aspects of the overall problem[7,8], or responding to various lobby groups (such as local government, Rural Doctors Association)[9] or the opposition parties. Indeed, many of the most recent initiatives have arguably been directed to placating the demands of parliamentarians whose marginal electorates include communities designated as under-supplied with doctors or classified as 'areas of need'[10].

Considerable resources from both Commonwealth and State governments, as well as local communities, have been invested in these rural medical workforce initiatives and programs. For example, the Regional Health Strategy announced by the Minister for Health and Aged Care in 2000 was budgeted at AU$562 million[5]. The Rural Retention Program alone, which makes payments to GPs based on their length of service and the remoteness of the area in which they practice, has a budget of AU$81.6 million for the period 2003-2007[11].

In view of the plethora of recruitment and retention initiatives and their not insignificant cost, it is important and timely to ascertain which of the many factors that might be addressed by these initiatives are likely to have the most impact on recruitment or retention. In addition, given that the relevance and significance of such initiatives may differ according to geographical location, it is appropriate to gauge whether doctors' perceptions of the initiatives' importance vary according to the size and degree of rurality or remoteness of communities.

The objective of the present study was to examine the effectiveness of different recruitment and retention incentives from the perspective of the rural GP, who is well placed to make judgements about their relative merits. Doctors practising in rural and remote communities were, therefore, asked to indicate their perceptions of the relative importance of several possible interventions, in terms of their impact on recruitment to and retention of GPs in their communities.

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Australia's Medicare
Medicare is Australia's universal health insurance scheme. It provides health insurance cover to all Australian citizens and permanent residents and is funded through the taxation system.

Medicare payments for general practitioner services are made according to a schedule of fees. Medicare determines a scheduled fee for each service item, and payments are made at 85% of this fee. Payments are administered by the Health Insurance Commission. Doctors' fees for service may exceed this schedule fee.

Patients may pay the full amount of their account (including their co-payment) directly to the doctor and then claim the reimbursement from Medicare. Alternatively, doctors may choose to 'bulk-bill', in which case the doctor accepts the Medicare reimbursement as full payment for service and the patient has no out-of-pocket expense.

Figure 1: Australia's Medicare.

Table 1: Initiative areas, possible interventions and rationale for selection for ranking task

Initiative target area	Possible intervention	Rationale for selection
Professional support	Better education and professional support activity	The Commonwealth government funds the RACGP, General Practice Education and Training, Australian College of Rural & Remote Medicine, RWA and Divisions of General Practice to provide professional development programs and support.
Workforce supply	Better locum availability	The Commonwealth government funds RWA to administer the Rural and Remote General Practice Program, designed to assist with workforce recruitment and retention[12].
Income	Better remuneration per Medicare consultation	Calls for this have come from the RACGP[13] and the RDAA[14]. The RDAA has also lobbied for a differential rural rebate. In addition, the Commonwealth government funds Rural Retention Grants and the Practice Incentives Program, with payments differentiated by the degree of rurality or remoteness of the practice[11,15].
Infrastructure	Capital funding to improve practice infrastructure/enable GPs to set up practice	In many communities where it has proven difficult to attract private GPs, both government and local community funds have been used for this purpose[16].
Workforce supply & professional support	Improved after-hours and on-call arrangements	This issue has been so significant that the Commonwealth has funded several after-hours pilot studies to examine the feasibility and viability of alternative arrangements[4].
Professional support	Improved availability of allied health professional services	The Commonwealth government funded More Allied Health Services Program is designed to support the activities of the local GP and increase the range and quantity of allied health services available in rural communities[17].

RACGP, Royal Australian College of General Practitioners; RWA, Rural Workforce Agencies; RDAA, Rural Doctors Association of Australia.

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Methods

The questions

Six possible interventions which cover the major objectives underpinning rural workforce initiatives most relevant to doctors currently in rural practice were selected. Their selection was guided by the recruitment and retention literature and the recommended and actual initiatives emerging from that body of knowledge. The number of interventions was limited to six to minimise fatigue from the ranking task. These interventions, together with the respective initiative target areas are listed in the order of presentation (Table 1).

Respondents were asked to assign a rank from 1 to 6 to indicate the relative importance of each item ('1'= 'most important' to '6' = 'least important') with respect to the question "What would help most to attract more GPs to this community?". The task was then repeated with the question "What would help most to retain GPs in this community?"

GP selection

The data were collected as part of a national study into the viability of rural general practice undertaken jointly by the Rural Doctors Association of Australia and Monash University School of Rural Health Bendigo[18,19]. Using contact details provided by the Australian Health Insurance Commission, all general practitioners providing non-referred services for an average of one day per week or more in RRMA 3 to RRMA 7 communities were surveyed during winter 2002. Because this analysis was concerned with the perceptions of those doctors with potentially some proprietorial interest in and responsibility for their practices, only the responses of practitioners nominating themselves as practice principals, partners or associates (termed 'owners' from here on) are included.

Rurality indicator

The Rural Remote and Metropolitan Area (RRMA) classification was used as the indicator of rurality[20]. This classification is used for determining the levels of assistance available through a number of Commonwealth initiatives, such as the Practice Incentives Program[15].

Analysis

Responses that had validly ranked all items per question were included in the analysis. Tied ranks were excluded (<0.7% of respondents). Mean ranks were calculated for each item. These item means were then ranked to indicate the most through to least important items for respondent GPs in total and within each RRMA category, as well as for the control variables of practice size and GP sex.

The SPSS program procedure 'Explore' (SPSS Inc; Chicago, IL, USA) was used to calculate item means and to determine the 95% Confidence Intervals. Figures 2 and 3 were prepared using Microsoft Excel.

Ethics approval

The study was approved by the Monash University Standing Committee on Ethics in Research Involving Humans.

Results

Thirty five percent of all GPs practising in rural and remote Australia responded to the national survey, representing 53 percent of practices in those areas[18,19]. A total of 1050 respondents nominated themselves as owners of their practice. Table 2 shows the characteristics of these respondents. The majority have been in their practice for more than 10 years and thus have had the opportunity to see the effects of recruitment and retention initiatives.

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Table 2: Characteristics of practice owner GPs

Characteristic	*n* (%)
Gender	
Male	852 (81.8)
Female	189 (18.2)
Not stated	9
Rurality	
RRMA 3	176 (16.8)
RRMA 4	263 (25.0)
RRMA 5	549 (52.3)
RRMA 6	27 (2.6)
RRMA 7	35 (3.3)
Practice type	
Solo	245 (23.4)
Group	781 (74.5)
Other	22 (2.1)
Not stated	2
Practice size	
Fewer than 4 GPs	478 (46.3)
4 or more GPs	554 (53.7)
Not stated	18
10+ Years in current practice	571 (54.8)
Intend to stay less than 10 years more in current practice	573 (55.0)
Median age (years)	47

RRMA, Rural Remote and Metropolitan Area classification.
Source: Survey data collected for *Developing and Evaluating Viable Organisational and Economic Models of Rural GeneralPractice*. Rural Doctors Association of Australia and Monash University School of Rural Health, 2003.

Eighty-three percent of the eligible respondents provided valid responses to the question on what would help to attract GPs and 85% to the question on retention. The results, including their statistical significance are shown (Table 3). (Note that lower item mean equates to higher rank.)

The most notable finding is the high degree of agreement in the responses to the two questions, with the possible interventions being ranked in the same overall order for both. 'Better remuneration for Medicare consultations' and 'Improved after-hours and on-call arrangements' were ranked as the most important interventions for both attracting and retaining GPs, whereas 'Better education and professional support activity' and 'Improved availability of allied health professional services' were ranked as least important of the options presented.

Results of the analysis by degree of rurality and remoteness are displayed (Figs 2,3).

Analysis by degree of rurality (RRMA 3 to RRMA 5) also found strong agreement on the most important item, 'Remuneration per Medicare consultation', and on the two least important items, 'Availability of allied health services' and (excluding RRMA 4, retention question) 'Education and professional support', on both questions. For the three remaining items, differences between the means were not significant for RRMA 3 and RRMA 4, suggesting owner GPs regarded them as of similar importance. In the RRMA 5 communities, the items 'Better locum availability' and 'Capital funding to improve practice infrastructure' tied for third place on the recruitment question; while, on the retention question the six items were ranked without any overlap between them.

Despite small respondent numbers for the remote RRMA 6 and RRMA 7 communities, it is noteworthy that 'Better remuneration per Medicare consultation' and 'Improved after-hours and on-call arrangements' significantly outranked 'Improved availability of allied health services' for both questions.

Male and female doctors gave identical rankings on both the recruitment and retention questions. The only significant difference when controlling for practice size was that locum availability was rated more important for both recruitment and retention (second compared with fourth) by GPs working in practices with fewer than four doctors.

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Table 3: Means, ranks and confidence intervals for the importance of 6 intervention items to recruitment and retention, as perceived by owner GPs

Intervention item		What would help most to attract more GPs to this community?	What would help most to retain GPs in this community?
Better remuneration per Medicare consultation	Item rank Item mean CI	1 * 1.75 ± .08	1 * 1.7 ± .07
Improved after-hours and on-call arrangements	Item rank Item mean CI	2 * 3.17 ± .10	2 * 3.00 ± .10
Better locum availability	Item rank Item mean CI	3 3.50 ± .10	3 * 3.36 ± .10
Capital funding to improve practice infrastructure/enable GPs to set up practice	Item rank Item mean CI	4 3.55 ± .10	4 * 3.77 ± .10
Better education and professional support activity	Item rank Item mean CI	5 * 4.11 ± .09	5 * 4.12 ± .09
Improved availability of allied health professional services	Item rank Item mean CI	6 * 4.93 ± .08	6 * 4.97 ± .08
Number valid responses		873	894

* Mean is significantly different to all other means for the same question, ($p \leq .05$)
Source: Survey data collected for *Developing and Evaluating Viable Organisational and Economic Models of Rural General Practice*. Rural Doctors Association of Australia and Monash University School of Rural Health, 2003

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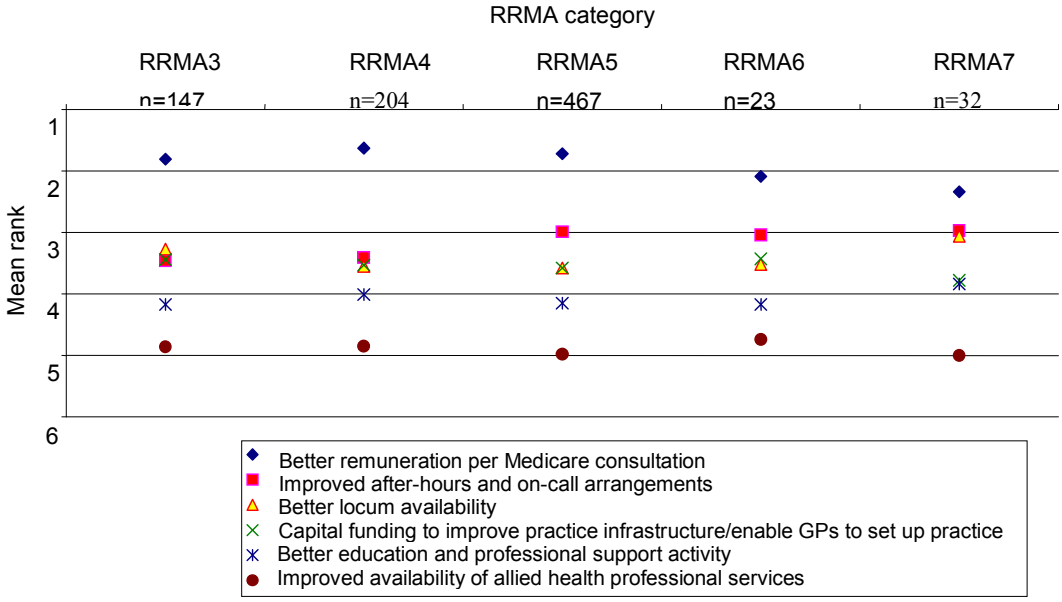

Figure 2: Mean ranks for the importance of intervention items to recruitment by RRMA category, as perceived by owner GPs. Source: Survey data collected for Developing and Evaluating Viable Organisational and Economic Models of Rural General Practice. Rural Doctors Association of Australia and Monash University School of Rural Health, 2003.

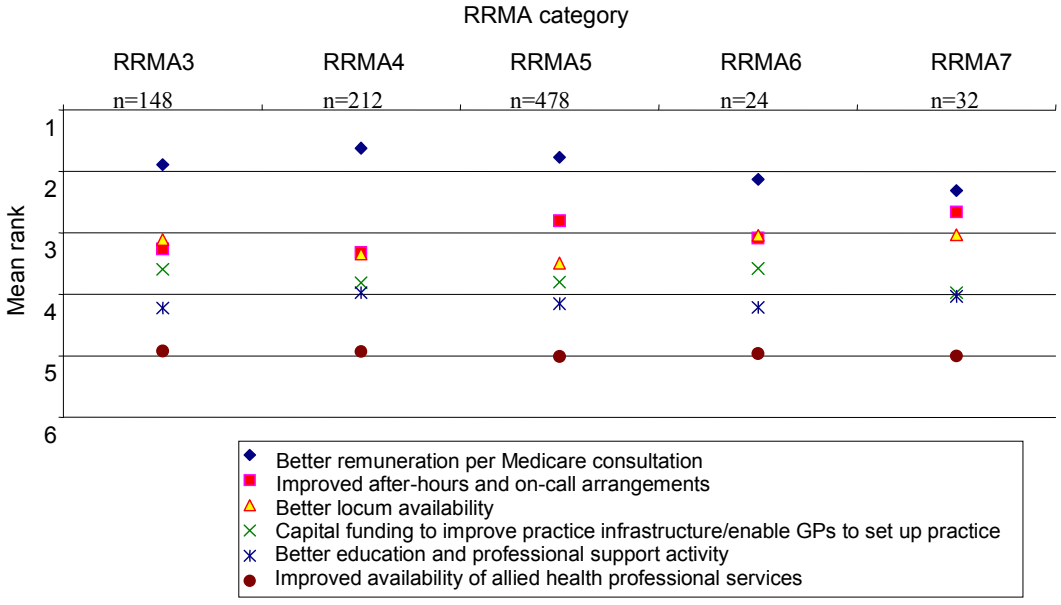

Figure 3: Mean ranks for the importance of intervention items to retention, by RRMA category, as perceived by owner GPs. Source: Survey data collected for Developing and Evaluating Viable Organisational and Economic Models of Rural General Practice. Rural Doctors Association of Australia and Monash University School of Rural Health, 2003.

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Discussion

Limitations

Although it was not high, the response rate for this study related to a population, not a sample, and is comparable with response rates for other GP surveys without monetary or other incentives[21,22]. Because the population of non-metropolitan owner GPs, as defined, is not known, it was not possible to test directly for representativeness of this sub-group, which makes up 70% of all respondents. Comparison of the total respondent characteristics with those of the population revealed a high degree of congruence, with respondent and total population groups within one year of each other on mean and median age, within 2% on sex distribution, within 5% on proportions who were Australian trained, within 7% on proportions within each RRMA category, and with identical proportions of solo practitioners. The one-third of the population who responded were, therefore, representative of the population on these indicators. A lack of evidence of non-response bias in any of the independent variables of interest, coupled with the large proportion of the population who responded, increased confidence in the extent to which findings may be generalised to the population. Caution has been exercised in interpreting results from RRMA 6 and RRMA 7 GPs because the total population of GPs in these locations is only 135 and 178, respectively.

The limited number of possible interventions might also be considered a shortcoming of this study. However, although only six interventions were presented for consideration by GPs, they represent sentinel initiatives selected on the basis of their representativeness of, and centrality to, the major programs directed towards solving the rural medical workforce problem.

Interpretation of results

In general, the initiatives identified by rural and remote owner GPs as being of most value in the recruitment and retention of doctors were those targeting income and medical workforce supply, with income being well ahead of all other items. Initiatives targeting infrastructure funding and professional support were ranked lower. This finding does not indicate that lower-ranked items were regarded by respondents as unimportant. All six items were selected because of the considerable body of evidence indicating their significance in ensuring the recruitment and retention of GPs to rural and remote areas.

Improved income, particularly remuneration from Medicare consultations, has long been an objective of organisations representing doctors in rural and remote regions of Australia. Throughout these regions, many communities are characterised by high medical care needs and generally low incomes[23]. In such areas, many doctors feel obliged to bulk-bill a large proportion of their patients, thereby limiting their consultation income to the Health Insurance Commission's maximum payment of AU$24.45 per standard consultation at the time of the survey. The recently announced MedicarePlus scheme will provide a higher rebate than that paid to metropolitan GPs to doctors practising in RRMA 3 to RRMA 7 and in Tasmania, who bulk-bill for services to children under 16 years and concession card holders[24]. It remains to be seen what the actual effect will be on GP recruitment and retention in non-metropolitan areas.

After-hours and on-call arrangements were identified as a major issue for rural and remote GPs, even those working in sizeable group practices. Both excessive after-hours on-call and the difficulty in obtaining locums contribute significantly to GP overwork and burnout, so it is not surprising that initiatives designed to address these issues are ranked highly in importance for recruiting and retaining the medical workforce in rural and remote areas.

The lowest ranked item, 'improved availability of allied health professional services', encompasses the objective of the More Allied Health Services program[17]. This program was established to increase allied health services in rural and remote areas (RRMA 4 to RRMA 7) and in so doing

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increase opportunities for GPs to access Enhanced Primary Care items on the Medicare Benefits Schedule. (These items require GPs to develop care plans and to case conference with other members of a health care team.) Regardless of the success of this program in meeting its primary objective, it is clear that further improvements in income and the medical workforce supply represent a greater priority for recruitment and retention for owner GPs than further improvements in the allied workforce supply.

Conclusions

Ensuring professional support, workforce supply, income and infrastructure support are all relevant to the recruitment and retention of GPs in rural and remote areas. The present study clearly demonstrates, however, that from the perspective of current owner GPs practising in such areas, specific initiatives that increase the core income of rural practices and which address those medical workforce supply issues which impact most on workload are considered those which are most likely to assist in the recruitment and retention of GPs to Australia's rural and remote communities

Acknowledgements

The study on which this analysis was based was funded by a grant from the Australian Government Department of Health and Ageing, under the auspices of the Rural Doctors Association of Australia (RDAA) in association with Monash University School of Rural Health Bendigo. The authors gratefully acknowledge the input and assistance of the following: Dr David Mildenhall, Dr Paul Mara, Dr Bruce Chater, Dr Nola Maxfield, Dr David Rosenthal, Mr Brian Curren and Ms Anna Boots of the Viable Models Project Committee of the RDAA, Health Connections, and technical assistance from Ms Vanessa Prince of Monash University.

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