Regionalisation of general practice training — are we meeting the needs of rural Australia?

David G Campbell, Jane H Greacen, Patrick H Giddings and Lesley P Skinner

t is well recognised that, compared with metropolitan areas, rural Australia is characterised by poorer health outcomes, which are linked to poorer access to health services and undersupply of general practice workforce.¹⁻⁴

Distribution of the general practice workforce was central to the deliberations of the Ministerial Review of General Practice Training. The Review's 1998 report called for the establishment of a National Council for General Practice Education and Training. It proposed four options for the role of the National Council and implementation of the report's recommendations, and ultimately the Minister adopted Option 4 of the report — a full-funding role for the proposed National Council. This was not the preferred option of the Review Committee. ⁵

The concept of "social accountability" of medical education programs, initially defined in 1994 by the World Health Organization and the World Organization of Family Doctors, ^{6,7} was also intrinsic to Recommendation 2 of the Review's 1998 report, which stated that

The Review Group recommends the development of collaborative general practice education operating at the local level, to ensure efficient delivery of high-quality general practice education through mechanisms that are responsive to community needs.⁵

The Review led to the introduction of a package of reforms to general practice training, including an increased quota of available training places from 400 to 450 (from 2001); the introduction of a dedicated Rural Pathway covering Rural, Remote and Metropolitan Areas (RRMA) 4–7 locations; the introduction of a mainly urban General Pathway; and the provision of financial incentives for Rural Pathway registrars.

Central to this was the establishment of General Practice Education and Training (GPET), a government-owned company limited by guarantee, in March 2001, and the regionalised and "contestable" Australian General Practice Training (AGPT) program to be delivered by 22 regional training providers (RTPs) across Australia, in January 2002.

Training places have increased steadily since then, with the intention that the intake will increase to 1200 per year by 2014.⁸

The regionalised general practice training program has now been in existence for almost a decade, so it is timely to ask if the program is meeting the needs of rural Australia in terms of producing a sufficient rural general practice workforce with the necessary skills for rural practice.

Impacts to date

Rural workforce numbers

The direct impact of GP registrar numbers on the rural workforce should not be underestimated. Data from 2008 show that nationally, GP registrars comprise about 11% of the rural and remote medical workforce, ⁹ and these doctors are a significant component of the workforce in rural practices.

ABSTRACT

- The concept of "social accountability" has underpinned the development of many medical education programs over the past decade.
- Success of the regionalisation of the general practice training program in Australia will ultimately be measured by the ability of the program to deliver a sufficient rural general practice workforce to meet the health needs of rural communities.
- Regionalisation of general practice training in Australia arose from the 1998 recommendations of the Ministerial Review of General Practice Training. The resultant competitive structure adopted by government was not the preferred option of the Review Committee, and may be a negative influence on rural workforce, as the competitive corporate structure of regional training providers has created barriers to meaningful vertical integration.
- Available data suggest that the regionalised training program is not yet providing a sustainable general practice workforce to rural Australia.
- The current increase in medical student and general practice training places provides an opportunity to address some of these issues.
- In particular, it is recommended that changes be made to registrar selection processes, the rural pipeline and vertical integration of training, and training for procedural rural practice.
- To achieve these goals, perhaps it is time for another comprehensive ministerial review of general practice training in Australia.

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However, retention is an issue — in January 2008, only 27% of previous Rural Pathway registrars were still working in rural practice (RRMA 4–7); another 29% of rural pathway graduates had worked in a rural area (RRMA 4–7) since graduating, with approximately one-third of their total services provided in rural areas. ¹⁰

Rural Australia suffers from a chronic undersupply of medical practitioners. In 2008, the Rural Doctors Association of Australia estimated that there was a shortfall of 1000 doctors in rural and remote areas of Australia. ¹¹

In addition, Australia continues to rely on international medical graduates (IMGs) to support the workforce. In 2008, 41% of doctors in rural and remote areas of Australia were IMGs. 10

IMGs also make up a steadily increasing proportion of GP registrars. ¹² In 2008, 55% of all Rural Pathway registrars were doctors subject to the 10-year moratorium (ie, either IMGs or international students who have graduated from an Australian university). ¹² These doctors are subject to Medicare provider number restrictions that require most of them to work for either 5

Registrars per year that have undertaken anaesthetics or obstetrics training

Training year	Anaesthetics	Obstetrics (only)	Obstetrics and gynaecology
2003	2	0	17
2004	5	3	46
2005	17	5	43
2006	25	4	44
2007	30	2	37
2008	29	7	46
2009	30	9	46
2010	28	8	20

Source: General Practice Education and Training., unpublished data, November 2010.

or 10 years in areas of need. In addition, 62% of the Rural Pathway intake in 2008 were doctors subject to the moratorium. 12

The Medicare Provider Number Legislation was introduced into the *Health Insurance Act* (Cwlth) in 1996, whereby IMGs were restricted from obtaining a full provider number for 10 years after gaining registration, with a subsequent moratorium on this restriction if an IMG worked in an area of need. This legislation predated the establishment of the AGPT program and the Rural Pathway, and it is therefore no surprise that IMG doctors have sought general practice training via the Rural Pathway, which is the predominant means of access to a provider number.

In a major analysis of rural general practice workforce trends and policy drivers over the past 30 years, Rural Health Workforce Australia examined the profile of the workforce 11 years after the introduction of the Medicare Provider Number Legislation. ¹² This analysis shows that the number of Australian-trained general practitioners in rural and remote Australia has risen from 4086 in 1995–96 to 4514 in 2006–07 — an increase of 10.5%. However, analysis of the GP registrar cohort shows that a significant number of international fee-paying Australian graduates are staying on in Australia after graduation, and undertaking general practice training on the Rural Pathway.

The Rural Health Workforce Australia paper concluded that: "If these trends continue there is reason to believe that IMGs and international Australian graduates will comprise the bulk of new additions to the rural and remote workforce." 12

This analysis should be considered within the broader context of other national programs designed to encourage exposure to rural practice during medical training. Under the Rural Undergraduate Support and Coordination program, all medical students in Australia undertake a 4-week placement in rural communities. In addition, under the Rural Clinical Schools program, from 2005 onwards, 25% of all Commonwealth-supported places in medical schools (ie, "domestic" students) spend at least 1 year in a rural clinical placement. For example, of the 1904 domestic graduates from Australian medical schools in 2009, at least 476 had spent a year or more in a rural placement during their clinical training. ¹³

In addition, the Prevocational General Practice Placements Program (PGPPP) provides opportunities for doctors in postgraduate years 1–3 to undertake rotations in general practice, with about half of these placements in rural practice. (The PGPPP was built on the Rural and Remote Areas Placement Program, which was

designed to provide rural placement opportunities for doctors in the prevocational years.) In 2010, 948 junior doctors rotated through the PGPPP program.¹⁴

Skills required for rural practice

Rural general practice is characterised by a broader scope of practice than metropolitan practice, and by more engagement with procedural and hospital practice. ¹⁵ An advanced or special skills training post as part of registrar training is a required component of the Australian College of Rural and Remote Medicine (ACRRM) program, and an optional addition to the Royal Australian College of General Practitioners (RACGP) program. Unfortunately, in the past 5 years, there has been an annual mean of only 21 registrars undertaking anaesthetics training, and 42 undertaking obstetrics and gynaecology training (Box).

There has been a significant reduction in the number of acute care health services in rural Australia over the past 30 years, with a concurrent decline in numbers of rural procedural GPs. 9,15 Between 2002 and 2008, there was a decline in the proportion of rural practitioners providing procedural services from 24% to 20%. 9 As a consequence, rural residents need to travel greater distances than previously to access medical care, including maternity services, surgery, anaesthetics and acute inpatient hospital care.

Thus, available data suggest that a decade after its inception, the regionalised general practice training program has not yet begun to meet the needs of rural Australia, in terms of a sustainable general practice workforce and the range of services required by rural communities.

Recommendations

We believe that the following changes to the regionalised AGPT program will ensure that RTPs take maximum opportunity of the significant increase in Australian medical graduates over the next few years:⁸

- AGPT selection processes and policies should meet evidencebased criteria, and should be designed to ensure recruitment of doctors with an interest in a rural career.
- RTPs need to ensure that their vocational training programs are part of a training continuum involving rural-origin medical students, rural medical undergraduate programs and rural prevocational training programs (the "rural pipeline").
- The current vocational training structure must provide appropriate training pathways that equip graduates with the skills for rural practice, especially "rural generalist" and procedural practice.

Selection into the Australian General Practice Training program

Current policy on selection into the AGPT program may be having a negative impact on rural workforce. Research over many decades has shown that the most consistent indicator of choice of a rural career is rural origin. There has been no explicit policy within the AGPT program to ensure that an adequate proportion of entrants are of rural origin.

In Australian medical education, selection of the "best" available applicants has not necessarily supported the rural medical workforce. Government was obliged to introduce a requirement for medical schools in Australia to recruit at least 25% of their intake from rural-origin students. In acknowledgement of the lower level

of academic opportunity in many rural communities to support entry into medical school, the rural entrant score was lowered. ¹⁹

The competitive selection of the "best" applicants into general practice training, without any specific requirement to select for "rural intent", will have a similar negative impact on rural workforce.

In Victoria and New South Wales, changes have been made to the selection process for 2011, with rurally based RTPs able to select partially on the basis of a "connection to rural" with individual applicants. This needs to be expanded nationally to ensure a significant intake of rural-origin applicants and graduates of rural clinical schools.

Structural effects — the rural pipeline and collaboration in medical education

Opportunities for doctors to undertake most of their medical training in rural environments is often referred to as the rural pipeline. ^{20,21}

Five key points along the pipeline are:

- the formation of career aspirations during the school years;
- medical school admission procedures;
- exposure during medical school and during residency training to rural clinical practice;
- · a curriculum oriented to rural health delivery; and
- a system of educational and professional support for practising rural doctors.

RTPs in Australia are required to demonstrate engagement with other levels of medical education to support integrated training for medical practice.²²

The competitive structure of the AGPT program involving individual corporate entities within fixed geographical boundaries is not directed toward achieving such outcomes. This competitive environment is focused on encouraging RTPs to directly deliver the "core business" of general practice training within a fixed budget, without meaningful effort to integrate with other levels of medical education.

To contribute to the rural pipeline, RTPs must develop shared programs and activities with rural clinical schools, rural medical schools and local hospitals. Examples include practice support, accreditation of training posts, joint training arrangements, and professional development support for hospital- and community-based supervisors and teachers. This engagement will have a positive impact on selection into the program and the nature of training provided.

RTPs now also have responsibility for the PGPPP. This provides rural RTPs with a significant opportunity to collaborate with regional and rural hospitals to develop effective local models of prevocational training, as part of the rural pipeline, to enable rural clinical school graduates to continue their training in a rural environment.

Regionalisation of the national program should not be deemed to be successful until the vast majority of RTPs are engaged in meaningful vertical integration of medical education.

Appropriate training pathways

The AGPT program apprenticeship model of training has focused mainly on the community practice environment, with less attention to hospital-based training.²³ Many registrars are credited with a year of recognition of prior learning on joining the AGPT program, if they have completed an accredited year of hospital

training before joining the program. It is possible for a registrar to complete their training without further exposure to a hospital environment. This does not prepare them for rural medical practice.

The relatively small number of registrars undertaking procedural skills training needs to be addressed.

With an increase in the numbers of trainees, there is the opportunity to increase the amount of training undertaken in rural hospitals, in both general rotations and posts specifically accredited for procedural training, including joint community—hospital procedural posts.

A feature of the development of rural clinical schools since 2005 has been strong engagement with rural and regional hospitals, as well as the establishment of clinical academic leadership and academic infrastructure for teaching procedural skills. Rural clinical schools, RTPs and rural hospitals need to work in partnership to increase the number of procedural training positions in rural and regional Australia.

The introduction of the Rural Pathway within the AGPT program was designed to ensure an adequate proportion of entrants undergo training in rural areas. Since the ACRRM's initial accreditation by the Australian Medical Council in February 2007, registrars have had a choice between the RACGP training program and the ACRRM pathway. The ACRRM Vocational Preparation Pathway was designed to prepare GPs specifically for rural practice, with a fully integrated rural preparation curriculum. Some RTPs have been slow to accept and promote the ACRRM pathway to registrars. Only 45 of the more than 600 entrants to the AGPT program in 2009 identified themselves as ACRRM pathway registrars.

The Rural Generalist Pathway in Queensland has been successful in attracting junior doctors with an interest in rural procedural practice. ²⁵ This program encompasses four of the five key components of the rural pipeline discussed above, and is specifically designed to train participants in the skills required for rural procedural practice. The Rural Generalist Pathway is being considered by other states, and has recently been reviewed by the Australian Government as a solution to rural workforce requirements. ²⁶ RTPs and rural clinical schools need to embrace this program as a key workforce strategy, with appropriate modification to fit the procedural workforce models of relevant jurisdictions.

Conclusion

It is clear from currently available data that the regionalised AGPT program is not meeting the general practice workforce needs of rural Australia. The development of RTPs has been marked by a significant focus on establishment of corporate structures, appropriate governance and financial responsibility. This focus has perhaps been at the expense of workforce outcomes. It is interesting that the establishment of regionalised training was not accompanied by a comprehensive prospective evaluation of the process.

It is therefore recommended that the program develops a more strategic workforce focus, including adoption of trainee selection policies based on evidence for workforce outcomes.

RTPs are now well established entities, and need to use their solid foundation to become more outward-looking and collaborative. Rural RTPs have a responsibility to meet the general practice workforce requirements of their communities. This requires engagement with the other elements of the rural pipeline, and ensuring they provide rurally orientated and, in particular, pro-

cedurally orientated programs of vocational training for generalist practice.

It is recommended that a comprehensive review of general practice training in Australia be undertaken. This review should make recommendations specifically around the performance of RTPs to deliver rural workforce outcomes, with a view to ensuring that the increased number of medical graduates over the next few years leads to appropriate and sustainable distribution of Australia's general practice workforce.

Competing interests

David Campbell and Patrick Giddings are on the Board of the Australian College of Rural and Remote Medicine. Patrick Giddings is the Chief Executive Officer of the Remote Vocational Training Scheme.

Author details

David G Campbell, MB BS, FRACGP, FACRRM, Associate Professor¹ Jane H Greacen, MB BS, FAFOM, FACRRM, Senior Lecturer¹ Patrick H Giddings, MB BS, FRACGP, FACRRM, General Practitioner² Lesley P Skinner, MB ChB, FRCGP, FRACGP, Associate Professor³

- 1 School of Rural Health, Monash University, Bairnsdale, VIC.
- 2 Private Practice, Albury, NSW.
- 3 Rural Clinical School, University of Western Australia, Kalgoorlie, WA. *Correspondence*: david.campbell@monash.edu

References

- 1 Australian Government Productivity Commission. Australia's health workforce: Productivity Commission research report. Canberra: PC, 2005.
- 2 Australian Institute of Health and Welfare. Australia's health 2010. Canberra: AIHW, 2010. (AIHW Cat. No. AUS 122.)
- 3 Humphreys JS, Jones MP, Jones JA, Mara PR. Workforce retention in rural and remote Australia: determining the factors that influence length of practice. *Med J Aust* 2002; 176: 472-476.
- 4 Wilkinson D. Selected demographic, social and work characteristics of the Australian general medical practitioner workforce: comparing capital cities with regional areas. *Aust J Rural Health* 2000; 8: 327-334.
- 5 General practice education: the way forward. Final report of the Ministerial Review of General Practice Training. Mar 1998. Canberra: Commonwealth Department of Health and Family Services, 1998.
- 6 Rourke J. Social accountability in theory and practice. *Ann Fam Med* 2006; 4 Suppl: S45-S48.
- 7 Boelen C. Prospects for change in medical education in the twenty-first century. Acad Med 1995; 70 Suppl: S21-S28.
- 8 Fox GJ, Arnold SJ. The rising tide of medical graduates: How will postgraduate training be affected? *Med J Aust* 2008; 189: 515-518.
- 9 Health Workforce Queensland and New South Wales Rural Doctors Network. Medical practice in rural and remote Australia: combined rural

- workforce agencies national minimum data set report as at 30th November 2008. Brisbane: HWQ, 2009.
- 10 Australian Government Department of Health and Ageing. Report on the audit of health workforce in rural and regional Australia. April 2008. Canberra: DoHA. 2008.
- 11 Rural Doctors Association of Australia submission to Australia 2020 Summit. October 2010. http://www.rdaa.com.au/Uploads/Documents/RDAA%20submission%20to%20the%20Australia%202020%20Summit%2 0--%209%20April%202008_20101015113009.pdf (accessed Apr 2011).
- 12 Rural Health Workforce Australia. Will more medical places result in more rural GPs? Melbourne: RHWA, 2008.
- 13 Medical Training Review Panel. Fourteenth report (2011). Canberra: Australian Government Department of Health and Ageing, 2011. In preparation.
- 14 Australian Government Department of Health and Ageing. Report on the 2010 review of the Medicare Provider Number Legislation. December 2010. Canberra: DoHA, 2010.
- 15 Britt H, Miller G, Valenti L. "It's different in the bush": a comparison of general practice activity in metropolitan and rural areas of Australia 1998–2000. Canberra: Australian Institute of Health and Welfare, 2001. (AIHW Cat. No. GEP 6.)
- 16 Career decision making by postgraduate doctors. Sydney: AMWAC, Dec 2005. (AMWAC Report No. 2005.3.)
- 17 Jones M, Humphreys J, Prideaux, D. Predicting medical students' intentions to take up rural practice after graduation. Med Educ 2009; 43: 1001-1009
- 18 Worley P, Martin A, Prideaux D, et al. Vocational career paths of graduate entry medical students at Flinders University: a comparison of rural, remote and tertiary tracks. Med J Aust 2008; 188: 177-178.
- 19 Wilson NW, Couper ID, De Vries E, et al. A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural Remote Health* 2009; 9: 1060.
- 20 Murray RB, Wronski I. When the tide goes out: health workforce in rural, remote and Indigenous communities. *Med J Aust* 2006; 185: 37-38.
- 21 Tesson G, Curran V, Strasser R, et al. [Adapting medical education to meet the physician recruitment needs of rural and remote regions in Canada, the US and Australia] [French]. Cah Sociol Demogr Med 2005; 45: 229-253.
- 22 General Practice Education and Training. GPET Quality Framework (2006–2008). 2.3. Outcomes for regionalisation. RTP objectives 2006. Canberra: GPET, 2006.
- 23 General Practice Education and Training. Submission to the National Health and Hospitals Reform Commission. Canberra: GPET, 2008.
- 24 Australian College of Rural and Remote Medicine. Submission for accreditation. Australian Medical Council. September 2009. Brisbane: ACRRM. 2009.
- 25 Rural Doctors Association of Australia. Queensland's Rural Generalist Pathway a lifeline for country medicine. Rural Pulse 2010; Winter: 22-25. http://www.rdaa.com.au/Uploads/Documents/Rural%20Pulse%20Winter%202010%20-%20no%20ads_20101014040244.pdf (accessed Apr 2011).
- 26 Nova Public Policy. Review of the Queensland Rural Generalist Pathway model to examine whether there is potential to expand the model nationally. June 2010. Canberra: Nova Public Policy, 2010.

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