

# Addressing general practice workforce shortages: policy options

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Australia has a shortage of general practitioners, in part due to general practice becoming a less popular career choice as technology and specialisation have advanced. Graduating medical students are now often older and have families, and their aspirations as medical students and junior doctors have changed in favour of more relaxed lifestyles with shorter working hours.<sup>1</sup> Concurrently, the primary health care needs of the population have increased, as chronic illness begins to dominate the health care agenda.

We conducted a literature review of 198 international and Australian published papers and other documents, along with one-on-one interviews of selected stakeholders, to explore the factors that affect career and practice location choices of medical students and junior doctors.<sup>2</sup> Here, we summarise the evidence-based information from this review and discuss how it can contribute to forming policy options that increase career choice in relation to general practice, and practice in rural and community locations.

## Key findings

The main findings of the literature review are summarised in the Box. The length and quality of clinical attachments in general practice, community and rural locations exert powerful effects upon students. Prevocational general practice placements (through the Prevocational General Practice Placements Program [PGPPP]) can be strongly positive experiences, as seen in the United Kingdom.<sup>3</sup> Remuneration and the flexibility of training and service delivery emerged as critically influential factors for doctors. Female doctors, especially, strive to combine their own family commitments with patient care, and this influences their career decisions.<sup>4</sup>

## Policy options

### Medical school selection processes

Several Australian medical schools already have an explicit commitment to graduating a specified number of students who intend to choose a career in general practice. Additional incentives for such a policy could include financial bonuses if the schools meet their targets. Medical deans would need to negotiate with the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) to agree on extra incentive funding for graduates taking up general practice vocational training places beyond the current lowest percentage of graduates for any medical school who do so (12.2%).<sup>5</sup>

The Australian Medical Workforce Advisory Committee (AMWAC) found that 28% of GP registrars from a rural background intended to practise in a rural location in the long term, compared with 10% of registrars from an urban background.<sup>6</sup> This almost threefold difference in intention was also apparent for registrars in other specialties. Thus, a system of payments to students from rural backgrounds entering health professional education could serve as an incentive to increase the number of doctors choosing to practise in rural locations.<sup>7-9</sup>

There are few published data in relation to differences in career choice between graduate-entry and undergraduate-entry medical

## ABSTRACT

- There is an ongoing shortage of general practitioners in Australia, accompanied by a decline in the popularity of general practice as a career choice.
- Many factors influence the career choice of junior doctors and medical students, including role models, the quality of clinical attachments during training, remuneration, and flexibility of training and working hours.
- Evidence-based strategies that could increase the number of doctors choosing general practice as a career include longer and higher-quality general practice attachments during medical school and the early postgraduate years, and emphasising the positive aspects of general practice, such as flexibility.
- General practice would become a more attractive choice if remuneration was in line with hospital specialties.

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students. A British study on this topic showed that at the end of the pre-registration (intern) year, a higher but non-significant number of doctors from graduate-entry schools stated that general practice was their first choice of career (32% v 29%). Three years after qualification, the cohort showed a significant difference (38% v 32%).<sup>10</sup>

### University processes — nurture

There is a lack of formal career counselling in medical schools.<sup>11,12</sup> While medical students and junior doctors may receive informal advice through talking to senior practitioners, such interaction is not necessarily available to everyone who would like it. In the UK, the most common source of informal advice is from more experienced peers.<sup>13</sup> The development of formal career counselling services in Australia would require national support. A DEEWR-funded national coordinating body might provide the necessary resources, such as a central electronic information portal, nationally relevant information on career opportunities, career-planning tools, and training of career advisers. Support from within each medical school could enable the appointment of a lecturer to serve as a career counsellor, who would offer impartial information about career opportunities and recommend further discussion with a doctor from a relevant specialty.

There is a widely held view that there are not enough high-profile academic GPs and that the discipline of general practice is under-represented in medical schools.<sup>14,15</sup> Heads of general practice departments might fruitfully discuss how to enhance the academic standing of the discipline by collaborating to form strategies for research and educational development. The focus should be on nurturing and aiding the next generation of academic GPs by providing GP registrars with training in research and education — the fundamentals of academic practice. At present, General Practice Education and Training offers competitive funding equivalent to 6 months of a 1-year advanced academic registrar post (annual salary, about \$74 000). Registrars work for at least

**Key findings of the literature review — factors affecting general practice as a career choice**  
(adapted from Thistlethwaite et al<sup>2</sup>)

Factor	Action	For	Against
<b>Selection</b>			
Medical school selection	<ul style="list-style-type: none"> <li>Positively discriminate for:                             <ul style="list-style-type: none"> <li>Female students</li> <li>History of community service</li> <li>Rural background</li> <li>Older students</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Evidence that these factors affect career intentions in favour of general and rural practice</li> </ul>	<ul style="list-style-type: none"> <li>Many people do not feel comfortable with positive discrimination</li> <li>More women are entering medicine anyway</li> </ul>
Career choice at entry	<ul style="list-style-type: none"> <li>Select students stating a preference for general practice or rural practice</li> </ul>	<ul style="list-style-type: none"> <li>Evidence that this predicts final career choice</li> </ul>	<ul style="list-style-type: none"> <li>Potential students may not be honest</li> <li>Choice may not be made so early and may change, particularly for younger students</li> </ul>
Academic ability	<ul style="list-style-type: none"> <li>Rather than targeting high achievers, give preference to students with:                             <ul style="list-style-type: none"> <li>a broad background</li> <li>less interest in research</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Evidence that these students are more likely to choose general practice</li> </ul>	<ul style="list-style-type: none"> <li>General practice also needs a research base and prestige to be enhanced as an academic specialty</li> </ul>
Financial incentives	<ul style="list-style-type: none"> <li>Provide bonded places</li> <li>Provide grants</li> </ul>	<ul style="list-style-type: none"> <li>Ties students into specific careers</li> <li>Reduces student debt</li> </ul>	<ul style="list-style-type: none"> <li>Bonded places are not popular</li> <li>Grants are expensive</li> </ul>
Graduate entry	<ul style="list-style-type: none"> <li>Increase graduate-entry places</li> </ul>	<ul style="list-style-type: none"> <li>Some evidence this influences choice of general practice</li> </ul>	<ul style="list-style-type: none"> <li>Lengthens study time</li> </ul>
<b>University — nurture</b>			
Clinical attachments	<ul style="list-style-type: none"> <li>Make general practice and rural attachments:                             <ul style="list-style-type: none"> <li>Earlier</li> <li>Longer</li> <li>Multiple</li> <li>Hands-on, with attention to quality</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Evidence that these affect career choice in favour of general or rural practice</li> </ul>	<ul style="list-style-type: none"> <li>Need more general practitioners to host students</li> <li>Not all general practice placements allow students to have hands-on experience</li> <li>Need better funding model (and more money)</li> <li>Quality may suffer with increased quantity</li> </ul>
GPs involved in teaching in medical schools	<ul style="list-style-type: none"> <li>Portray positive aspects of general practice</li> <li>Enhance prestige</li> </ul>	<ul style="list-style-type: none"> <li>Enhances satisfaction for potential and current GPs</li> </ul>	<ul style="list-style-type: none"> <li>None identified</li> </ul>
Role models	<ul style="list-style-type: none"> <li>Increase number of GPs in faculty (movement in this direction with more medical school deans who are GPs)</li> <li>Attract quality GPs to teach and host students</li> </ul>	<ul style="list-style-type: none"> <li>Enhances GPs' role in teaching and mentoring</li> </ul>	<ul style="list-style-type: none"> <li>Are there enough GPs to do this?</li> <li>Cost</li> <li>Increasing number of medical students will put pressure on quality placement opportunities</li> </ul>
Information about general practice as a career	<ul style="list-style-type: none"> <li>Emphasise the positive factors:                             <ul style="list-style-type: none"> <li>Diversity</li> <li>Flexibility</li> <li>Continuity of care</li> <li>Procedures</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Quality general practice attachments can demonstrate a GP's work and lifestyle</li> <li>These factors attract people to general practice</li> </ul>	<ul style="list-style-type: none"> <li>Potentially not enough quality attachments that demonstrate these</li> </ul>
Career counselling	<ul style="list-style-type: none"> <li>Make good-quality career counselling readily available</li> </ul>	<ul style="list-style-type: none"> <li>Desired by students and doctors</li> </ul>	<ul style="list-style-type: none"> <li>Cost and resources</li> <li>Time issues in overcrowded curriculum</li> </ul>
<b>Prevocational</b>			
Clinical attachments	<ul style="list-style-type: none"> <li>Make prevocational general practice placements more widely available</li> </ul>	<ul style="list-style-type: none"> <li>Evidence starting to show positive effects</li> </ul>	<ul style="list-style-type: none"> <li>Legal (indemnity) and cost implications</li> <li>Need more general practices to participate</li> </ul>
<b>General practice</b>			
Remuneration	<ul style="list-style-type: none"> <li>Increase to be in line with specialists</li> </ul>	<ul style="list-style-type: none"> <li>Would make general practice more attractive to some doctors</li> </ul>	<ul style="list-style-type: none"> <li>Cost</li> <li>Potential that unsuitable doctors will enter general practice for the remuneration</li> </ul>
Hours	<ul style="list-style-type: none"> <li>Enable flexibility</li> </ul>	<ul style="list-style-type: none"> <li>An attractive factor</li> </ul>	<ul style="list-style-type: none"> <li>Need more doctors to cover same amount of work</li> <li>Worsens workforce shortages</li> </ul>
Prestige	<ul style="list-style-type: none"> <li>Enhance prestige by word of mouth</li> <li>Increase number of general practice researchers</li> </ul>	<ul style="list-style-type: none"> <li>Enhances attractiveness for those who want an academic career</li> </ul>	<ul style="list-style-type: none"> <li>None identified</li> </ul>

three sessions a week in general practice to make up this full amount. Ten such posts are currently funded twice a year; adding another 10 posts would cost an additional \$370 000 per year. In addition, funding for higher degrees and research opportunities would need to become available through universities. It may be that part-time academic positions could be more attractive, combined with five sessions of clinical work a week.

### Funding models for clinical placements

The quality, quantity and location of clinical placements are important influences on career choice.<sup>16</sup> The current Practice Incentives Program payment of \$100 per 3-hour teaching session with medical students within general practice is inadequate compensation for the remuneration potentially lost by GPs due to time spent in teaching. If GPs see three fewer patients per session because they are interacting with students, they lose more than \$100 at the bulk-billing rate for a 15-minute consultation. We advocate a payment of \$58 000 per practice per student per year — twice the current amount of \$29 000 for supervising a PGPPP doctor, reflecting the extra supervision that students require. Under such a scheme, GPs would contract with medical schools to provide placements for students for agreed learning activities. Additional payments — tied to a 5–10-year contract to provide educational services — would be given to some general practices that need to build supporting infrastructure, such as an extra consulting room, or to purchase additional teaching resources such as books, computers or furniture. We suggest a starting point of \$10 000 per practice; the contracts for such payments would include documented evidence of need. Teaching practices would be accredited by medical schools, the Royal Australian College of General Practitioners (RACGP) and, for rural practices, the Australian College of Rural and Remote Medicine (ACRRM).

Given the emerging evidence (both anecdotal and from experience in the UK<sup>3</sup>) that the PGPPP is inspiring more junior doctors to choose a career in general practice, federal government resources should be made available to work towards a target of 50% of postgraduate year 1 (PGY1)/PGY2 doctors undertaking a PGPPP rotation within 5 years. There are currently about 140 general practices participating in the PGPPP in Australia. With 3000 new doctors entering the workforce within the next 10 years, the cost of an estimated 1000 interns or junior doctors undertaking a PGPPP rotation in 5 years will be \$10 million per annum, assuming that each doctor has a 4-month rotation in general practice and that current payments to training practices are maintained.

An integrated model of general practice education, linking medical students with junior doctors and then GP registrars, could be delivered through community clinical schools, as recommended at the General Practice Education Summit in July 2007.<sup>17</sup> There is evidence that a greater proportion of the medical curriculum could be delivered in the community without compromising the quality of education or educational outcomes.<sup>18</sup> A working party needs to be established with DEEWR funding — it should include representatives from medical schools (and departments of general practice), the RACGP, the ACRRM, Australian General Practice Training, General Practice Registrars Australia, and the Australian Medical Students' Association.

Rural clinical schools, first established in 1998 to provide high-level, academically robust education to medical students in rural settings, have been set up at a federal government cost of \$4.5

million, with state governments often contributing a similar amount. We would expect community clinical schools to be less costly, as funded student accommodation would be less likely to be necessary in urban areas. We would like to see 25% of medical students undertaking a 1-year community placement in urban, suburban or rural settings (eg, similar to the Riverland project of Flinders University, in which senior students are attached to a rural general practice for 1 year<sup>19</sup>).

### General practice as a career choice — enhancing the factors that make general practice attractive

Flexibility of training and working is a major attraction of general practice.<sup>20</sup> However, due to the nature of general practice remuneration, there is no funding for maternity leave or other incentives to recruit and retain women within the workforce of private practice. Policymakers have considered the possibility of developing salaried general practice positions that offer job security and regular remuneration for those doctors who prefer not to work in private general practices, but there has been strong resistance to this idea from within professional organisations. Salaried doctors would be employed in community clinics or clinical schools and receive a fixed income rather than Medicare payments. The effects of such a policy would need to be closely monitored, and these positions would not be agreeable to all. A recent study from the UK, where both self-employed and salaried GPs work within the National Health Service, has shown that doctors taking up the salaried option tend to be at the younger and older ends of the age spectrum, and are more likely to be female and to favour part-time work.<sup>21</sup> Such an option would add to the flexibility of the general practice career pathway.

Surprisingly, the level of remuneration in general practice compared with hospital specialties does not feature prominently as a factor in career choice for most students. However, the AMWAC medical careers survey of 2002 lists financial prospects as the most important factor for male doctors but not female doctors, who were more concerned with working hours and flexibility.<sup>5</sup> However, evidence from the UK is starting to show an increase in the number of doctors applying for GP training posts, a change that is thought to be partly a result of the recent increase in general practice remuneration.<sup>22</sup> We therefore recommend a review of payments for general practice, to bring them in line with specialty remuneration.

### Conclusion

Australia needs more GPs, particularly in rural areas, and the evidence suggests that there are ways to influence the career choices of medical graduates. Many of these require an increase in funding, although some — such as increasing the number of students from rural backgrounds — do not. We recommend an increase in the number of PGPPP places, a new funding model for clinical attachments in general practice, and more academic GP posts. The attractions of general practice, such as flexibility, need to be emphasised to medical students and junior doctors, and thought should be given to creating salaried GP positions and increasing remuneration for GPs.

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### Competing interests

None identified.

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### References

- 1 Australian Institute of Health and Welfare. Medical labour force 2005. National health labour force series no 40. Canberra: AIHW, 2008. (AIHW Cat. No. HWL 41.)
- 2 Thistlethwaite JE, Shaw T, Kidd M, et al. Attracting health professionals into primary health care: strategies for recruitment. Canberra: Australian Primary Health Care Research Institute, 2007. [http://www.anu.edu.au/aphcri/Domain/Workforce/Thistlethwaite\\_25\\_FINAL.pdf](http://www.anu.edu.au/aphcri/Domain/Workforce/Thistlethwaite_25_FINAL.pdf) (accessed May 2008).
- 3 Grant J, Southgate L. Pre-registration house officer placements in general practice: final report. Milton Keynes, UK: Centre for Education in Medicine, Open University, 2000.
- 4 Lawrence J, Poole P, Diener S. Critical factors in career decision making for women medical graduates. *Med Educ* 2003; 37: 319-327.
- 5 Australian Medical Workforce Advisory Committee. Career decision making by doctors in vocational training. AMWAC medical careers survey, 2002. AMWAC Report 2003.2. Sydney: AMWAC, 2003.
- 6 Australian Medical Workforce Advisory Committee. Doctors in vocational training: rural background and rural practice intentions. *Aust J Rural Health* 2005; 13: 14-20.
- 7 Ward AM, Kamien M, Lopez DG. Medical career choice and practice location: early factors predicting course completion, career choice and practice location. *Med Educ* 2004; 38: 239-248.

- 8 Somers GT, Strasser R, Jolly B. What does it take? The influence of rural upbringing and sense of rural background on medical students' intention to work in a rural environment. *Rural Remote Health* 2007; 7: 706.
- 9 McDonald J, Bibby L, Carroll S. Recruiting and retaining general practitioners in rural areas: improving outcomes through evidence-based research and community capacity-building. Evidenced-based review. Final report. Ballarat: Centre for Health Research and Practice, University of Ballarat, 2002.
- 10 Goldacre MJ, Davidson JM, Lambert TW. Career preferences of graduate and non-graduate entrants to medical schools in the UK. *Med Educ* 2007; 41: 349-361.
- 11 Hays R, Veitch C, Sen Gupta T, et al. What do interns think about vocational training for general practice? *Aust Fam Physician* 2004; 33: 6.
- 12 Mahoney R, Katona C, McParland M, et al. Shortage specialties: changes in career intentions from medical student to newly qualified doctor. *Med Teach* 2004; 26: 650-654.
- 13 Jackson C, Ball J, Hirsh W, Kidd JM. Informing choices: the need for career advice in medical training. Cambridge: National Institute of Careers Education and Counselling, 2003.
- 14 Rosser WW. The decline of family medicine as a career choice. *CMAJ* 2002; 166: 1419-1420.
- 15 Del Mar CB, Freeman GK, van Weel C. "Only a GP?": is the solution to the general practice crisis intellectual? *Med J Aust* 2003; 179: 26-29.
- 16 Tolhurst H, Stewart M. Becoming a GP — a qualitative study of the career interests of medical students. *Aust Fam Physician* 2005; 34: 204-206.
- 17 Summit Executive Committee. General Practice Education Summit. Recommendations. Canberra: Australian General Practice Training, 2007.
- 18 Thistlethwaite JE, Kidd MR, Hudson JN. General practice: a leading provider of medical student education in the 21st century. *Med J Aust* 2007; 187: 124-128.
- 19 Worley P, Silagy C, Prideaux D, et al. The Parallel Rural Community Curriculum: an integrated clinical curriculum based in rural general practice. *Med Educ* 2000; 34: 558-565.
- 20 Grant J, Chambers K, Maxted M, Owen H. Modernising medical careers: identification of career intentions as a function of foundation programme experience. Final report. Milton Keynes, UK: Centre for Education in Medicine, Open University, 2005.
- 21 Ding A, Hann M, Sibbald B. Profile of English salaried GPs: labour mobility and practice performance. *Br J Gen Pract* 2008; 58: 20-25.
- 22 Burr T; National Audit Office. NHS pay modernisation: new contracts for general practice services in England. London: The Stationery Office, 2008. [http://www.nao.org.uk/publications/nao\\_reports/07-08/0708307.pdf](http://www.nao.org.uk/publications/nao_reports/07-08/0708307.pdf) (accessed May 2008).

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