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Commentary

Building careers beyond the city: strengthening the retention of medical graduates in rural Australia

AUTHORS


Lachlan Van Schaik[1] PhD, Lecturer * [https://orcid.org/0000-0001-9589-661X]

Tamekha Develyn[1] PhD, Associate Lecturer [https://orcid.org/0009-0004-2562-9478]

Will Harvey[1] PhD, Associate Lecturer [https://orcid.org/0000-0001-6452-6325]

Zahra Ali[1] PhD, Associate Lecturer [https://orcid.org/0009-0000-4517-1370]

Julian Wright[1] PhD, Head of Department [https://orcid.org/0000-0002-1447-021X]

CORRESPONDENCE

*Dr Lachlan Van Schaik lachlan.vanschaik@unimelb.edu.au

AFFILIATIONS

[1] Department of Rural Health, The University of Melbourne, Shepparton, Vic. 3630, Australia

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Abstract

Persistent medical workforce shortages in rural Australia continue to undermine equitable access to health care. This commentary explores key barriers and enablers to rural medical graduate retention, focusing on the role of rural immersion programs, systemic training constraints, and evolving models of end-to-end rural medical education. While initiatives such as rural clinical schools, the John Flynn Placement Program, and Murray–Darling Medical Schools Network have enhanced rural exposure, the lack of accessible specialty training pathways and professional support in rural areas continues to disrupt continuity. The mismatch between medical graduate output and vocational training availability compounds the issue. A coordinated effort involving universities, specialist colleges, government, and communities is essential to establish integrated training pipelines. End-to-end rural training, expanded regional training hubs, cultural competence, and community integration are critical components

of a sustainable solution. Addressing these multifactorial challenges offers an opportunity to build a resilient and regionally distributed rural medical workforce.

Keywords

cultural competence, education, medical graduate, retention, training pathways.

Commentary

Rural and remote regions across Australia continue to experience chronic shortages in medical workforce capacity, despite decades of targeted interventions. This persistent inequity limits healthcare access and undermines efforts to address the widening health gap between metropolitan and rural populations. While various government programs and university-led initiatives have attempted to address these issues, long-term rural retention of medical graduates remains an unresolved challenge. This commentary draws on national experience and emerging models to reflect on opportunities for improving the retention of medical graduates in rural practice.

A critical component of rural workforce development has been rural immersion during medical school. Programs such as rural clinical schools (RCSs) and the John Flynn Placement Program (JFPP) have demonstrated a positive influence on rural career intent, particularly when combined with the recruitment of rural-origin students. These programs foster early connections with rural communities and demystify the realities of rural practice[1,2]. RCSs, in particular, have enabled sustained rural exposure for students, which is a key predictor of future rural practice[3]. The JFPP complements this by pairing students with rural mentors over multiple placements, promoting continuity, and exposing students to the professional and social environments of rural practice. However, positive rural exposure alone is insufficient. Without a clear, structured, and supportive vocational training pathway that enables junior doctors to complete specialty training in rural settings, the transition from interest to long-term rural practice is often lost[4]. Many students who initially express interest in rural careers eventually move back to metropolitan areas due to limited postgraduate training opportunities in rural regions, the need to access specialist supervision, or to accommodate personal and family needs[5].

This highlights a systemic disconnect between rural medical school experiences and the largely metropolitan-centred vocational training that follows. To address this, structured pathways must be embedded across the continuum of medical education, from student recruitment to specialty training and career establishment. One emerging strategy is the implementation of end-to-end rural medical education, which offers students the opportunity to complete the entirety of their medical education, including preclinical and clinical phases, in a rural setting. While empirical evidence is still forthcoming, this model is designed to enhance rural identity, strengthen relationships with communities, and reduce the attrition often seen during transitions back to metropolitan centres[6].

The Murray–Darling Medical Schools Network (MDMSN), developed under the Stronger Rural Health Strategy, exemplifies the end-to-end approach. Students enter these programs with the intention of remaining in a rural area throughout their degree. While it is too early to evaluate the long-term impact of these programs on rural retention, they have already influenced how medical education is being delivered and decentralised across Australia. Importantly, the MDMSN has encouraged institutions to reconsider the logistics of curriculum delivery, workforce exposure, and place-based learning, all crucial to improving familiarity with rural settings.

Systemic barriers, however, persist. The limited number of accredited rural training positions in specialties such as psychiatry, surgery, and internal medicine remains a major deterrent. Current vocational training models often require rotations through urban centres, disrupting rural immersion. A flipped model of training has been proposed, where rural centres become the home base for specialist training, and short-term metropolitan rotations are used only when necessary. This model would preserve rural continuity while addressing the current limitations in training availability. Regional training hubs, as established under the Rural Health Multidisciplinary Training (RHMT) program, are ideally situated to coordinate such models, although many lack the autonomy or funding to realise their full potential.

The limited availability of accredited rural vocational training positions remains a key structural barrier to rural workforce retention. Based on nationally reported workforce data and longitudinal cohort evidence, it is evident that Australia produces approximately 3800–4000 medical graduates annually, yet vocational training capacity, particularly in rural settings, has not expanded proportionately[7,8]. In general practice, approximately 1500 training places are available nationally each year; however, advanced training opportunities in smaller rural and remote communities remain limited, with training positions disproportionately concentrated in larger regional centres[9].

This imbalance is more pronounced in non-general practice specialties. The majority of accredited specialty training positions continue to be located in metropolitan public hospitals, with rural positions largely confined to major regional centres rather than smaller rural or remote settings[8,10]. Despite targeted initiatives to increase rural exposure, the absolute number of accredited rural specialty training posts remains small relative to national training capacity.

Importantly, rural training capacity is not homogeneous. Larger regional centres (Modified Monash Model MM 2–5)[11] host the majority of accredited rural vocational training positions, while many smaller rural and remote communities (MM 6–7) have few or no advanced training posts, reflecting supervision, caseload, and accreditation constraints[8]. This distribution has clear implications for retention. Longitudinal cohort evidence demonstrates that doctors who undertake extended and continuous rural training are significantly more likely to practise rurally in the years following graduation, whereas training pathways that require relocation back to metropolitan centres are associated with reduced rural retention[4,12].

Recent initiatives, including expanded regional training hubs and end-to-end rural medical education programs, represent important progress. However, when considered against national workforce numbers, the scale of these initiatives remains modest. Without a substantial increase in the number of accredited rural

specialty training positions, particularly beyond larger regional centres, these reforms are unlikely to generate workforce impacts commensurate with current rural health service demand.

Another issue undermining rural retention is the bottleneck created by an imbalance between medical graduate numbers and available vocational training posts. Health Workforce Australia highlighted this mismatch more than a decade ago, yet it persists today[8]. The oversupply of graduates, combined with undersupply of training posts, especially in rural areas, has left many junior doctors in extended pre-vocational stages. This not only risks disillusionment among aspiring rural doctors but also disrupts long-term rural workforce planning. Strategic alignment between graduate output and available training posts must become a policy priority, particularly in high-need specialties such as general practice, psychiatry, and geriatrics.

Financial incentives have traditionally been used to encourage rural practice. Programs like the General Practice Rural Incentives Program and the Bonded Medical Program (BMP) offer financial support and structured return-of-service obligations. However, these programs have produced mixed results. Sempowski and Jutzi et al argue that financial incentives are most effective when paired with professional support systems and community integration[13,14]. Recent reforms to BMP, such as the Bonded Return of Service System, have introduced greater flexibility, but the long-term impact of these changes has yet to be determined[15].

Beyond financial factors, rural retention is deeply shaped by social, cultural, and professional environments. Personal and professional isolation remains one of the most frequently cited contributors to attrition from rural practice. Empirical work from rural Victoria demonstrates that community-level assets, including spousal employment support, social integration, local leadership engagement, and community adaptability are significant determinants of GP recruitment and long-term retention[16,17]. Studies using the Community Apgar Questionnaire highlight that perceptions of community welcome and responsiveness can be as influential as professional factors in shaping retention decisions[16]. Addressing these determinants requires coordinated local action involving health services, local government, and community organisations to improve rural liveability and professional sustainability.

The importance of community engagement and integration cannot be overstated. Cosgrave et al highlighted the role of social embeddedness in the retention of rural health workers[18]. Strong local networks, community involvement, and cultural connectedness all contribute to a sense of belonging and professional purpose. Training programs must foster these relationships early, creating environments where students and junior doctors are not only professionally but also socially engaged with the communities they serve.

Cultural competency is also key, particularly in rural communities with significant Aboriginal and Torres Strait Islander populations. Training that includes Indigenous health curricula, local cultural immersion, and opportunities to work closely with Aboriginal Health Services can improve patient outcomes and contribute to workforce retention. Programs such as the Remote Area Health Corps and university-led Indigenous entry schemes are vital components of a broader strategy to build a culturally competent and representative rural workforce[19].

Interprofessional education may also contribute to rural retention by reducing professional isolation and strengthening team-based practice capabilities, particularly in small rural health services. Training environments that reflect the collaborative realities of rural health care where GPs, nurses, allied health professionals, and Aboriginal Health Workers work in close partnership may enhance professional satisfaction and preparedness for rural practice[20,21]. While the direct causal relationship between interprofessional education and long-term retention remains under investigation, existing evidence supports its role in improving workforce experience and sustainability in rural settings[21].

Another often-overlooked barrier is the hierarchical nature of specialist colleges and the urban-centric model of accreditation. Many rural hospitals and health services struggle to meet the supervision and caseload requirements for specialty training accreditation. As a result, rural placements are often limited to junior or pre-vocational doctors, with few options for advanced trainees. Decentralising the accreditation process and creating partnerships between metropolitan training centres and rural hubs could enable broader distribution of training posts and foster more sustainable rural training networks.

Evaluation and longitudinal data collection are crucial to understanding and addressing rural workforce challenges. Projects such as the Medical Schools Outcomes Database and longitudinal research conducted through the MDMSN collaboration provide valuable insights, yet data gaps remain. Effective workforce policy must be underpinned by strong, consistent data on where graduates go, what factors influence their location choices, and what interventions are most effective[7,12]. Without this, interventions risk being reactive and poorly targeted.

This imbalance between medical graduate output and vocational training capacity continues to create a bottleneck in the medical workforce pipeline, particularly in rural and regional settings. While universities have scaled up training capacity and implemented end-to-end models, their role in the workforce pipeline is just one piece of the puzzle. Specialist medical colleges, as the gatekeepers of postgraduate training, must now provide the missing piece by creating and supporting pathways that allow doctors to train and qualify in rural and regional Australia[10]. Without this coordinated effort, even the most well-designed rural immersion programs will fail to translate into long-term workforce outcomes.

Encouragingly, emerging models suggest potential pathways to strengthening rural specialist retention. Some regional health services have successfully fostered home-grown specialist training pipelines, with advanced trainees returning to regional centres where they were well supported during earlier training stages[10]. Initiatives such as rural-based specialist mentorship, regional training partnerships, relocation concierge roles, and more inclusive selection processes have been reported to improve recruitment experiences and professional satisfaction[18]. Systematic evaluation of these initiatives remains limited; however, they represent promising directions for future research and policy development aimed at strengthening rural specialist training capacity.

In conclusion, rural medical graduate retention is a multifaceted challenge requiring a systemic and sustained response. Programs such as rural clinical schools, JFPP, MDMSN, RHMT, and BMP all play important roles, but they must be coordinated within a broader, long-term vision for rural health workforce development. End-to-end rural training represents a promising evolution in this

space, not because of confirmed outcomes, yet, but because of its alignment with what the evidence already tells us: that long-term rural immersion, social integration, targeted training opportunities, and systemic support are the pillars of effective rural retention.

The future of rural health care in Australia depends on not only producing more doctors, but also ensuring they are given every reason to stay where they are needed most. This includes addressing the educational, structural, professional, and personal domains that shape medical career trajectories. With a coordinated, evidence-informed approach, Australia can achieve a rural medical workforce that is resilient, responsive, and regionally embedded for generations to come.

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Conflicts of interest

The authors declare no conflicts of interest.

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References

1 Greenhill JA, Walker J, Playford D. Outcomes of Australian rural clinical schools: a decade of success building the rural medical workforce through the education and training continuum. *Rural and Remote Health* 2015; **15:** 2991.
https://doi.org/10.22605/RRH2991
https://www.ncbi.nlm.nih.gov/pubmed/26377746

2 Young L, Kent L, Walters L. The John Flynn Placement Program: evidence for repeated rural exposure for medical students. *Australian Journal of Rural Health* 2011; **19(3):** 147–153.
https://doi.org/10.1111/j.1440-1584.2011.01201.x
https://www.ncbi.nlm.nih.gov/pubmed/21605228

3 McGirr J, Seal A, Barnard A, Cheek C, Garne D, Greenhill J, et al. The Australian Rural Clinical School (RCS) program supports rural medical workforce: evidence from a cross-sectional study of 12 RCSs. *Rural and Remote Health* 2019; **19(1):** 4971.
https://doi.org/10.22605/RRH4971
https://www.ncbi.nlm.nih.gov/pubmed/30827118

4 Seal AN, Playford D, McGrail MR, Fuller L, Allen PL, Burrows JM, et al. Influence of rural clinical school experience and rural origin on practising in rural communities five and eight years after graduation. *Medical Journal of Australia* 2022; **216(11):** 572–577.
https://doi.org/10.5694/mja2.51476
https://www.ncbi.nlm.nih.gov/pubmed/35365852

5 McGrail MR, Russell DJ, O'Sullivan BG. Family effects on the rurality of GPs' work location: a longitudinal panel study. *Human Resources for Health* 2017; **15(1):** 75.
https://doi.org/10.1186/s12960-017-0250-z
https://www.ncbi.nlm.nih.gov/pubmed/29052504

6 Turner B, Bullock S, Butler S, Ferrington L, Macartney M, Major L, et al. The Murray-Darling medical schools network research collaboration: protocol for a longitudinal, multi-university program of work to explore the effect of rurally based medical school programs. *Rural and Remote Health* 2024; **24(1):** 7657.
https://doi.org/10.22605/RRH8306
https://www.ncbi.nlm.nih.gov/pubmed/38212295

7 Medical Deans Australia and New Zealand (MDANZ). *MSOD national data reports 2024.* Sydney, Australia: MDANZ, 2024.

8 Health Workforce Australia. *Australia's future health workforce – doctors.* Canberra, Australia: Health Workforce Australia, 2014.

9 Australian Government Department of Health and Aged Care. *Australian general practice training program guidelines.* Canberra, Australia: Australian Government, 2024.

10 Murray RB, Craig H. A sufficient pipeline of doctors for rural communities is vital for Australia's overall medical workforce. *Medical Journal of Australia* 2023; **219(S3):** S5–S7.
https://doi.org/10.5694/mja2.52022
https://www.ncbi.nlm.nih.gov/pubmed/37544005

11 Australian Government Department of Health and Aged Care. *Modified Monash Model.* Canberra, Australia: Australian Government, 2025.

12 Kaur B, Carberry A, Hogan N, Roberton D. The medical schools outcomes database project: Australian medical student characteristics. *BMC Medical Education* 2014; **14:** 180.
https://doi.org/10.1186/1472-6920-14-180
https://www.ncbi.nlm.nih.gov/pubmed/25169797

13 Sempowski IP. Effectiveness of financial incentives in exchange for rural and underserviced area return-of-service commitments: systematic review. *Canadian Journal of Rural Medicine* 2004; **9(2):** 82–88.

14 Jutzi L, Vogt K, Drever E, Nisker J. Recruiting medical students to rural practice: perspectives of medical students and rural recruiters. *Canadian Family Physician* 2009; **55(1):** 72–73.
https://www.ncbi.nlm.nih.gov/pubmed/19155375

15 Australian Government Department of Health and Aged Care. *Bonded Medical Program: information sheet.* Canberra, Australia: Australian Government, 2020.
https://www.health.gov.au/sites/default/files/documents/2021/10/bonde medical-program-information-sheet.pdf (Accessed 1 January 2020).

16 Terry DR, Baker E, Schmitz DF. Community assets and capabilities to recruit and retain GPs: the Community Apgar Questionnaire in rural Victoria. *Rural and Remote Health* 2016; **16(4):** 3990.
https://doi.org/10.22605/RRH3990

17 Terry DR, Nguyen HB, Schmitz D, Baker E. Lived experiences and insights into the advantages important to rural recruitment and retention of general practitioners. *Rural and Remote Health* 2018; **18(3):** 4561.
https://doi.org/10.22605/RRH4561
https://www.ncbi.nlm.nih.gov/pubmed/30089214

18 Cosgrave C, Malatzky C, Gillespie J. Social determinants of rural health workforce retention: a scoping review. *International Journal*

of Environmental Research and Public Health 2019; **16(3):** 314. https://doi.org/10.3390/ijerph16030314 https://www.ncbi.nlm.nih.gov/pubmed/30678350

19 Australian Institute of Health and Welfare (AIHW). *Rural and remote health.* Canberra, Australia: AIHW, 2024.

20 Oandasan I, Baker GR, Barker K, Bosco C, D'Amour D, Jones L, et al. *Teamwork in healthcare: promoting effective teamwork in healthcare in Canada.* Ottawa, Canada: Canadian Health Services Research Foundation, 2006. https://www.healthsystemsevidence.org/articles/62fe6f61ef088708d8dc7 teamwork-in-healthcare-promoting-effective-teamwork-in-healthcare-in-canada (Accessed 14 February 2026).

21 Reeves S, Pelone F, Harrison R, Goldman J, Zwarenstein M. Interprofessional collaboration to improve professional practice and healthcare outcomes. *Academic Medicine* 2016; **91(7):** 101–108.