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rural health workforce
AUSTRALIA

Training for the future:

How are rural placements perceived and how do we give our students what they are looking for?

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1. EXECUTIVE SUMMARY

Recruiting rural origin students has long been recognised as an important policy lever to increase the medical workforce outside of Australia's major cities. While evidence demonstrates the 'rural background effect' is a strong predictor of future rural practice, there is a limited pool of rural origin students available to study medicine. To address the geographic maldistribution of medical practitioners, more urban students and junior doctors need to be encouraged to 'go rural'.

Providing positive rural training experiences is a proven strategy to increase the likelihood of rural practice. In fact, recent research suggests that rural placements and exposure can be a stronger predictor of early career choice than rural background. In this context, a clear understanding of what motivates our students and junior doctors to undertake rural training placements is crucial to refine the targeting and marketing of rural training, as well as improve placements to ensure the experience they deliver matches student expectations.

This research was undertaken to explore medical students' perceptions of metropolitan versus rural placements and the factors students consider in deciding to undertake clinical rotations. The membership of the National Rural Health Student Network (NRHSN) was surveyed during March 2015 and responses were obtained from 713 medicine students.

In considering clinical placements and rotations students are looking for *opportunities for hands-on learning, quality teaching, professional support* and *developing their professional skills*. The *financial costs* associated with placements (such as accommodation) and *distance from family and friends* are the only non-career or professional themes mentioned by the majority of students.

Rural placements were strongly associated with many issues considered important in considering a placement, such as *opportunities for hands-on learning, more attention from supervisors* and *more autonomy*. In contrast, metropolitan placements were perceived as providing *exposure to the latest technology,* having *better facilities and infrastructure,* being *more prestigious*, and *better for those who want to specialise*.

It is recommended that more is done to remove the perception that in many regards rural rotations are of inferior quality to metropolitan ones – particularly in terms of issues such as prestige, poorer facilities and how they are viewed by specialist colleges and potential employers.

2. INTRODUCTION: IS RURAL BACKGROUND ENOUGH?

2.1 The rural background effect

A key strategy to improve the distribution of medical workforce outside of major cities has been to encourage students from a rural background to study medicine. The so-called 'rural background effect' has been demonstrated to be a strong and positive predictor of attraction to rural practice[1] and as such universities participating in the Rural Clinical Training and Support Program are required to have at least 25% of their yearly student intake of rural origin.

In 2014, medical schools reported that 27.6% of their commencing domestic students were of rural origin.[2] This figure is approaching parity with the 29.5% of the Australian population living outside major cities.[3] Despite this however, the fact remains that while students from a rural background are significantly more likely to go on to rural practice, it is not a 100% conversion rate.

In fact, in the published literature the consensus seems to be that a student from a rural background is around two to three times more likely to practise rurally as one from an urban background.[4] In 2014, the Rural Clinical School of Western Australia published the findings from a study which examined the work location of a cohort of University of WA graduates who completed medical studies between 2002 and 2009.[5] The study found that less than 1 in 5 (18%) rural origin medical graduates were practising rurally, albeit this was three times the 6% figure amongst urban-background graduates.

Overall, applying these figure to national medical student numbers equates to around 270 graduates per annum practising rurally[6] - significantly less than the number of GPs who leave rural practice each year[7] let alone account for population growth or increased demand. Clearly, while a continued effort to attract rural origin students to medicine is important, we need to encourage more urban students and junior doctors to 'go rural'.

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[1] Jones M, Humphreys JS, McGrail MR. Why does a rural background make medical students more likely to intend to work in rural areas and how consistent is the effect? A study of the rural background effect. Australian Journal of Rural Health 2012; 20**:** 29-34.
[2] Medical Training Review Panel. Eighteenth report. Canberra: MTRP. 2015.
[3] Australian Bureau of Statistics. Regional population growth, Australia, 2013-14 (cat. no. 3128.0). Canberra: ABS. 2015.
[4] Laven G, Wilkinson D. Rural doctors and rural backgrounds: how strong is the evidence? A systematic review. Australian Journal of Rural Health 2003; 11**:** 277-284.
[5] Playford DE, Evans SF, Atkinson DN, et al. Impact of the Rural Clinical School of Western Australia on work location of medical graduates. Medical Journal of Australia 2014; 200: 104-107.
[6] Medical Training Review Panel. *Op cit.*
[7] During 2013, over 300 GPs ceased working in regional, rural and remote Queensland alone. See Health Workforce Queensland. Medical practice in remote, rural and regional Queensland: minimum data set report at 30 November 2013. Brisbane: Health Workforce Queensland 2014.

2.2 The impact of positive rural experiences

To this end, there is significant evidence that providing positive rural exposure and experiences to students from a non-rural background can have a beneficial impact on intensions to practise rurally.[8] These findings have informed policy initiatives such as the John Flynn Placement Program,[9] the development of rural training pathways and both short-term and extended rural placements. Having a positive rural experience at undergraduate level - whether it is undertaking an internship at one of the Rural Clinical Schools (RCSs)[10] or a one week placement living and working with a host community[11] - can increase the intent of an individual to embark on a rural career. Significantly, emerging research suggests that rural placements and exposure can be a stronger predictor of early career choice than rural background.

A recent study analysing data from the Medical Schools Outcome Database found that students who had undertaken an extended rural placement were more than three times as likely as those with a rural background to express a first preference for a rural internship.[12] The WA Rural Clinical School study cited earlier found the same proportion (15%) of urban background students who completed an academic year at the Rural Clinical School were practising rurally as those from a rural background who did not complete an extended rural placement, with the authors noting that *"this result is significant, given the limited pool of rural-background students available to be recruited into medicine"*.[13]

Rural clinical placements – both short and long-term – are a key mechanism through which urban medical students gain exposure to rural practice and lifestyles. However it is not the case that any rural placement is a good rural placement and a poor experience can result in turning students away from rural practice. In 2014 RHWA commissioned the University of Queensland to undertake research exploring the decision-making process to relocate rural amongst Australian-trained urban medical students and junior doctors.[14] A total of 25 medical students and 41 junior doctors took part in focus groups and indepth interviews in Melbourne, Brisbane and Adelaide.

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[8] World Health Organization. Increasing access to health workers in remote and rural areas through retention: Global policy recommendations. NLN Classification WA390. Geneva: WHO, 2010.
[9] 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: 147-153.
[10] Veitch C, Underhill A, Hays RB. The career aspirations and location intentions of James Cook University's first cohort of medical students: a longitudinal study at course entry and graduation. Rural and Remote Health 2006; 6: 537.
[11] Toussaint S, Mak DB. Even if we get one back here, it's worth it…': evaluation of an Australian Remote Area Health Placement Program. Rural and Remote Health 2010; 10: 1546.
[12] Clark TR, Freedman SB, Croft AJ, et al. Medical graduates becoming rural doctors: rural background versus extended rural placement. Medical Journal of Australia 2013; 199: 779-782.
[13] Playford DE, Evans SF, Atkinson DN, et al. *Op cit.*
[14] Zadoroznyj, M, Brodribb, W, Martin B. Understanding the decision to relocate rural amongst Australian trained urban medical students and junior doctors. Brisbane: Institute for Social Science Research, 2014.

The research found that for some of these students and junior doctors, a rural placement modified their longer term work aspirations about where to work, with positive experiences increasing the openness to rural practice. Conversely however, the authors noted that *"poorly supported rural exposures shifted the aspirations of a number of medical students and junior doctors away from rural practice. These findings suggest that investing in high quality rural placement experiences is important for encouraging rural practice."*[15]

Table 1: Comments from study participants illustrating positive and negative rural placement experiences

A positive rural placement experience
"I thought it was excellent because you basically get one-on-one time with the consultants . . . So lots of opportunity for learning things without having the registrars in the way. You really get to follow through with the patients because there's no intern either. So as a medical student you got to spend time in working out how to look after them on the ward . . . it was fantastic. I loved it, that's why I chose surgery. That's one of the best rotations I ever did."

vs

A negative rural placement experience
"I ended up in a rural hospital with no support with very unwell people, which I didn't feel confident managing. I had a couple of experiences with extremely sick patients and just me, or me with one other doctor looking after them, through the lack of resources. It certainly put me off working there as a more senior person, because I found that just highly anxiety-making".

[15] Ibid. P51.

2.3 How do students perceive placements and what are they looking for?

To further explore what medical students are looking for in rural placements, RHWA undertook a research project to quantify some of the themes identified by the University of Queensland research.

Specifically, the research aimed to explore the factors students consider in deciding to undertake placements and more broadly, their perceptions of the strengths and weaknesses of both rural and metropolitan placements.

3. METHODS

A questionnaire was administered through Survey Monkey and sent to the 16,898 members of the National Rural Health Student Network (NRHSN) during March 2015. The survey captured a range of student background characteristics such as demographics, rural origin, and place of residence, likelihood to practise rurally (for at least 5 years), the factors considered important when deciding whether or not to undertake a placement and perceptions of rural versus metropolitan rotations.

The NRHSN is a multi-disciplinary network of students who belong to the 28 Rural Health Clubs at Australian universities. Funded by the Department of Health and managed by RHWA, the NRHSN promotes rural health careers to students and provides a voice for students who are interested in improving health outcomes for rural and remote Australians.

The NRHSN membership is not a representative sample of health students at Australian universities. In addition to being heavily skewed towards medicine students (approximately 50%), NRHSN members have, by virtue of their membership, an expressed interest in rural health. Approximately 50% of the NRHSN membership is comprised of students from a rural background.

Nevertheless, the NRHSN is a large, national, multi-disciplinary database and it is planned to replicate this study amongst a more representative national sample at a later date.

4. RESULTS

Completed surveys were obtained from 1,203 NRHSN members. For the purposes of this study, analysis was confined to the 713 medicine students who responded to the survey.

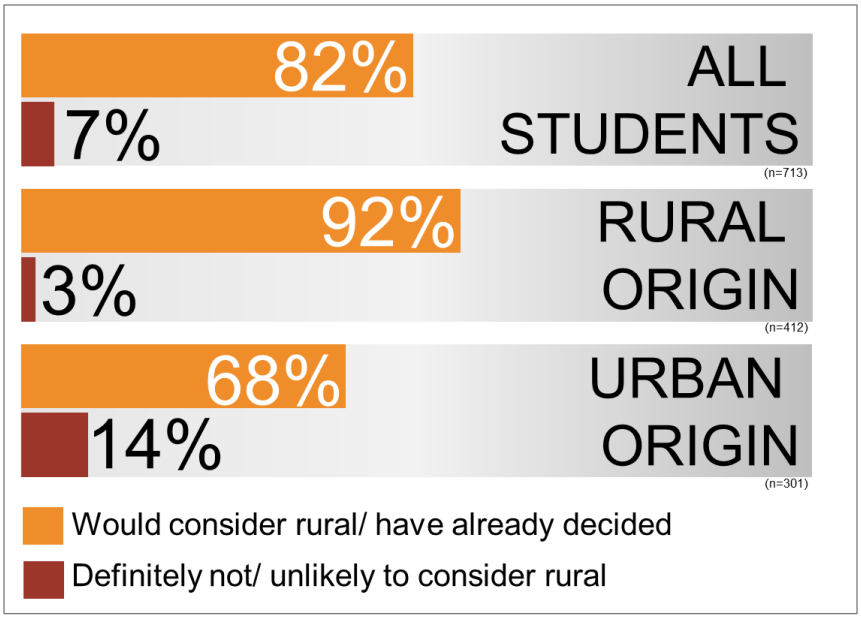
Table 1: Key characteristics of the sample obtained

Base: all respondents	Medicine Students (n=713) %	NRHSN Database (n=16,898) %
Gender		
Male	30	29
Female	70	71
Age		
18-25 years	64	59
26-35 years	30	33
36+ years	6	8
Where currently living		
Major cities (ASGC-RA 1)	55	N/A
Regional and remote (ASGC RA2-5)	45	N/A
Rural origin		
Yes	58	N/A
No	42	N/A
Undertaken rural placements		
Yes	83	N/A
No	17	N.A

4.1 Future intent to practise rurally

Respondents were presented with 5 statements regarding future intention to practise rurally for a period of at least 5 years. Given that the NRHSN is a body of students with an interest in rural health, it is to be expected that the vast majority indicate a positive disposition to practise rurally. Even amongst this sample, students with a rural background have a significantly higher intention to practise rurally compared with their urban counterparts (Figure 1).

Figure 1: Future intent to practice rurally (for at least 5 years)

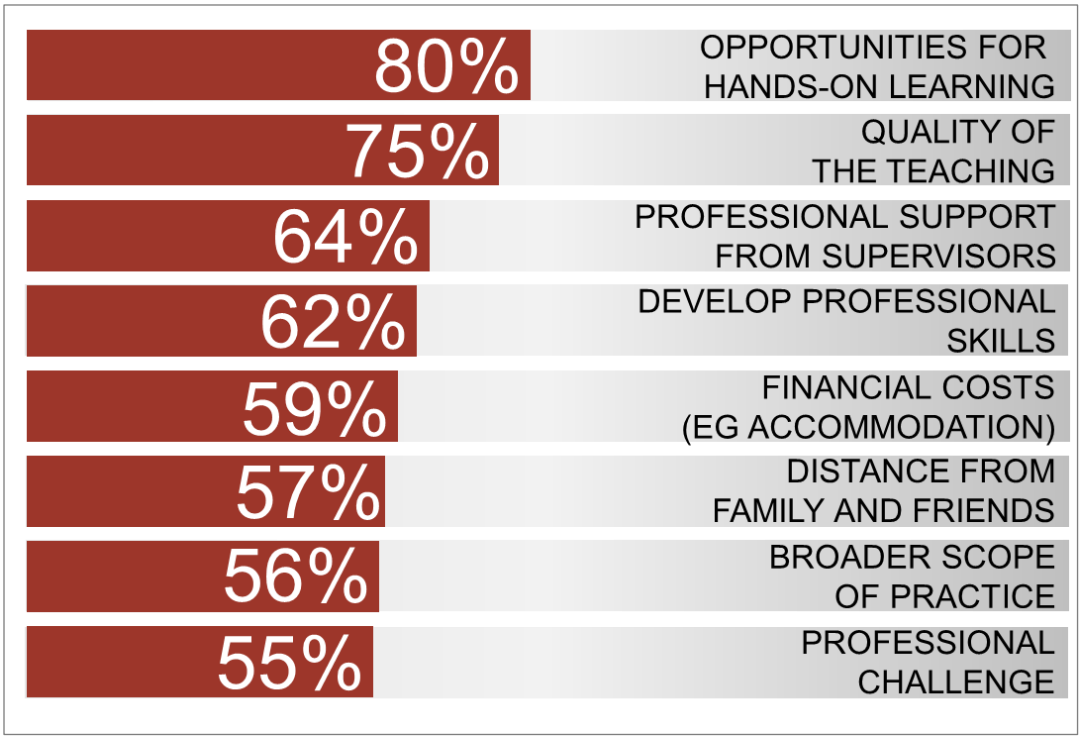


4.2 Factors of importance in considering clinical placements

From a list of 31 factors that might be considered when deciding to undertake a clinical placement in either a rural or metropolitan setting, respondents were asked to nominate which were more important to them (the order in which these factors were presented was randomised).

The 9 factors nominated by at least 50% of participants are summarised in Figure 2 (each participant nominated an average of 13 factors as important to them).

Figure 2: Factors considered important when deciding to undertake a clinical placement (n=701)

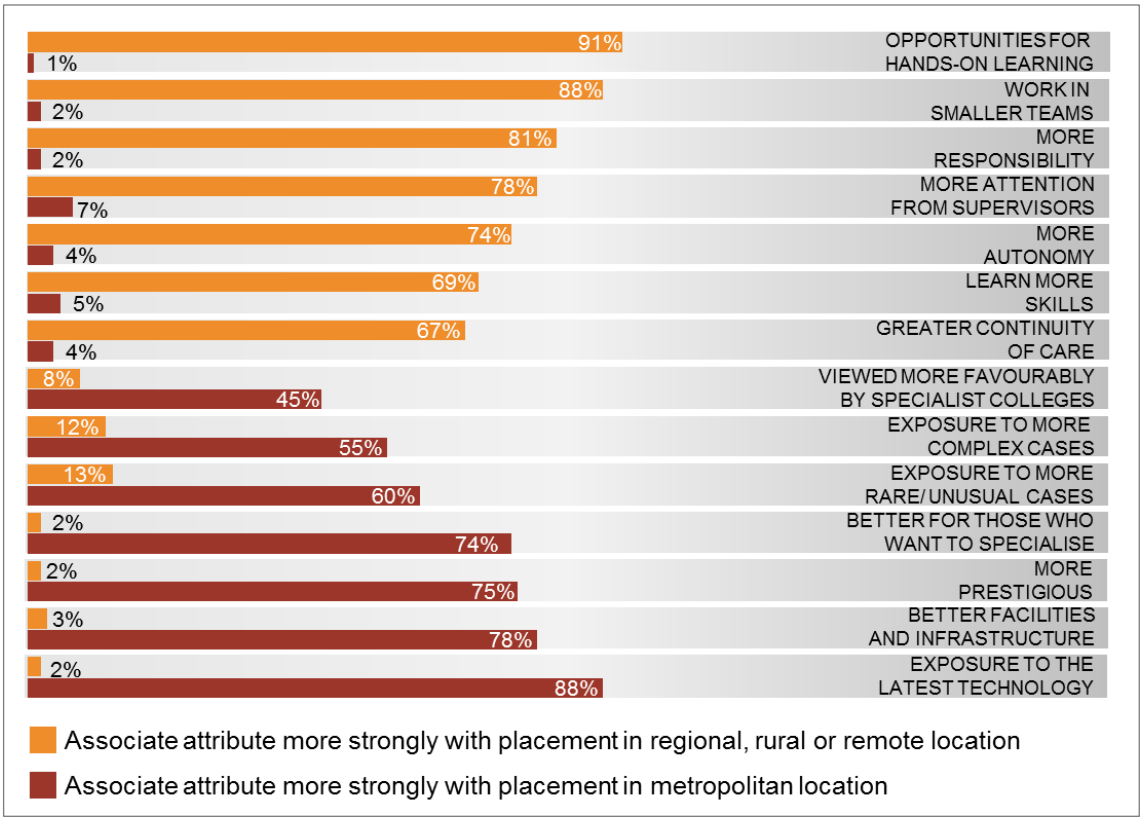


4.3 Perceptions of metropolitan versus rural clinical placements

A number of attributes that are considered important in deciding whether to undertake a clinical placement are strongly associated with rural locations, such as the opportunity for hands-on learning and attention from supervisors (Figure 3).

Metropolitan placements in contrast are seen as more prestigious, better for those who want to specialise and as being more favourably viewed by specialist colleges and professional associations. Metropolitan placements are also perceived to provide more exposure to rare and complex cases.

Figure 3: Perceptions of rural versus metropolitan clinical placements (Proportion associating each attribute more strongly with placements in regional, rural and remote or metropolitan settings; n=713)



5. DISCUSSION

The findings confirm that in considering clinical placements and rotations medical students are looking for quality experiences that will develop their professional skills. Opportunities for hands-on learning, quality of the teaching, professional support from supervisors and developing professional skills all figure highly in considerations. Distance from family and friends and the financial costs associated with placements (such as accommodation) are the only non-career or professional themes of note.

Rural clinical placements are strongly associated with many of the attributes students consider important – such as providing opportunities for hands-on learning and greater attention from supervisors. Conversely, metropolitan placements are perceived to be more prestigious, better for those who wish to specialise and as being more well regarded by specialist colleges and professional associations.

Whether or not this is in fact the reality, this is the perception of many of today's medicine students. Clearly, more work needs to be done, particularly by the specialist colleges, to remove some of the stigma attached to rural clinical placements. Students need to be assured that a rural placement will not negatively impact on their chances of being admitted to their preferred training college or be viewed less favourably by potential employers.

Metropolitan placements are also perceived as exposing students to more complex and unusual cases. It could be argued that due to the lack of specialist services in many rural locations students may obtain a **greater** exposure to more complex conditions and patients during a rural placement than they might in a metropolitan one.

Similarly, the strong perception that metropolitan placements offer superior facilities, infrastructure and technology is certainly not true in all cases, and those rural areas offering cutting edge technologies would do well to promote this to potential students.

6. CONCLUSIONS AND RECOMMENDATIONS

Encouraging domestic healthcare students and junior professionals to consider rural practice is crucial to growing our non-urban health workforce. A key component of this is exposing students to rural practice through clinical placements and rotations during their undergraduate studies and postgraduate training. The evidence is growing that positive, well-supervised, and supportive rural placements have a positive influence on students' intentions to practise in rural locations.[16,17]

This research demonstrates that today's students are looking for career and professional advantages in their placements. While rural placements offer some perceived benefits, it is recommended that more is done to remove the perception that in many regards they are of inferior quality to metropolitan placements – particularly in terms of issues such as prestige, reputation and how they are viewed by training colleges and potential employers.

Acknowledgment: Rural Health Workforce Australia and the National Rural Health Student Network are funded by the Australian Government Department of Health.

[16] Rural Health West. Critical success factors for recruiting and retaining health professionals to primary health care in rural and remote locations: contemporary review of the literature. Perth: Rural Health West, 2013.
[17] Playford DE, Evans SF, Atkinson DN, et al. *Op cit.*