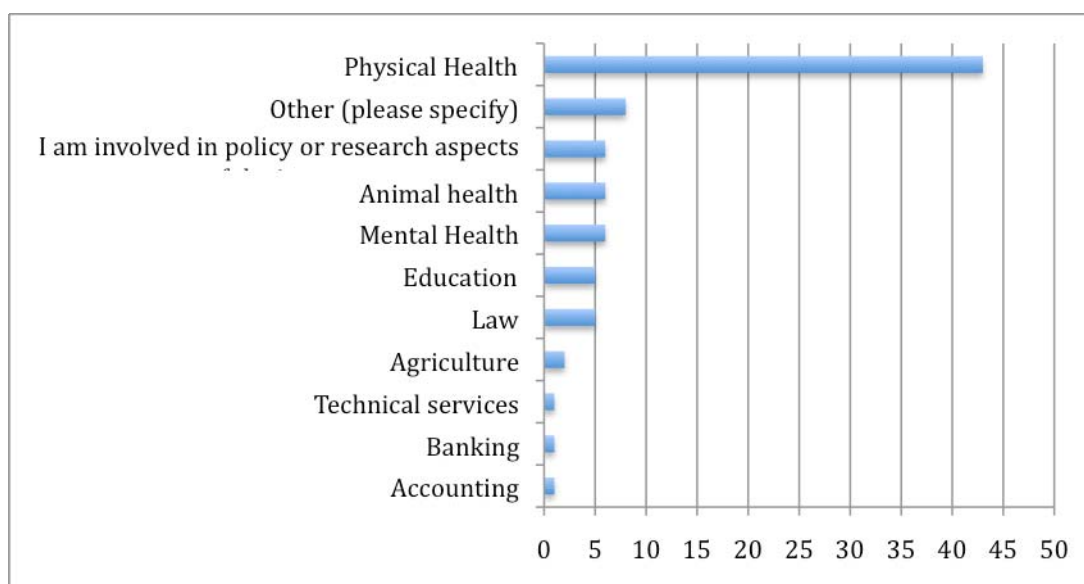


Creating network-based innovations for improving the supply and welfare of rural health professionals

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Deficiencies in health and other professional services increase roughly proportionately with distance from urban centres, and significantly with indigenous status. What is far less clear is how to reduce this disadvantage. This paper presents an in-depth scoping study using a 'creative problem solving' mode of action research to seek new solutions. It included detailed review of the literature on rural practice across a range of professions, a qualitative survey, a problem-solution focused workshop involving representatives of various professions and refinement of the research issues by a cross-disciplinary team.

Part of this approach was a web survey. Of the 313 people who commenced the survey, 122 completed it (38.98%). Some who completed the survey did not indicate their professional grouping. The graph below reflects the recorded disciplines.



The survey addressed: recruitment and retention, innovation in rural services, networked services delivery, training and education, lifestyle and family, isolation, economic issues, risk issues, gender issues, and opportunities for innovation across all of these (and other) dimensions. The survey data were distributed to participants in a 1-day 'summit', to refine directions for possible solutions, and to pose researchable questions. The resulting UNE "Rural Resurgence program" reflects the resulting hypothesis that much rural disadvantage derives from a lack of access to useable knowledge. These forms of knowledge include: knowledge delivered through formal education; knowledge delivered as vocational information; peer-to-peer learning; and knowledge delivered applied through highly skilled specialists ("professionals"). Our research suggests knowledge exclusion is functionally significant and indicates opportunities for innovation to reduce rural health disadvantage whilst strengthening rural health professions. It also suggests pathways to improvement that have not yet been systematically explored.

Reframing the investigation

The mainstream rural health care debate often assumes that rural health solutions principally involve (1) attraction and retention of primary health workers, accepting professional 'silos' (2) developing and maintaining the skills of these professionals; and (3) addressing the insufficiency of facilities and specialist expertise. This de-emphasises complex interactions between health care and broader rural concerns. These include: the interaction between health service disadvantage and gaps in the total professional workforce (including lawyers, teachers, accountants, engineers and the like); the systemic effects of professional workforce gaps on the economic and social welfare of communities (such as the aspirations of youth, resilience of families and the governance capacity of towns); and self-help capacity within rural communities. This reduces consideration that solutions for rural and indigenous communities may have to be radically different than for urban communities because of distance, scale and economics. More radical services innovation is also resisted because of the legitimate fear of 'second best' solutions, or because the required adjustments raise the spectre of erosion of hard-won professional interests.

Cross-professional concerns

The delivery of rural services is a concern across professions including health, law, finance, education, mining and agriculture. The challenge can be defined as issues concerning the *supply of services*, interacting with the *welfare of professionals*. Supply issues include attraction and retention of professionals, establishment and maintenance of service networks and support, and innovation in services. Welfare issues include career implications of rurality, isolation, legal or moral risk associated with rural practice, and restricted commercial opportunities. Issues affecting the supply of services (e.g. availability of service networks and support) overlap with the welfare of the professional (e.g. career development opportunities).

The problem possesses characteristics of a vicious circle. The completeness of the professional-services infrastructure is relevant to rural attractiveness. Relatively few professionals are likely to choose a community which places at risk the health or education of their children, or the welfare of their older family. Practice where complementary practice skills are lacking (such as specialists or supporting practitioners), or where a locum or associate is not available, is often likely to be unappealing. Practice in a services-deprived area may require that the professional exercise their skills in unconventional ways, by working without sufficient training or support, or moving outside accepted bounds of practice. This raises ethical and legal risks. Working in isolated areas also poses the risk that goodwill in a practice may be unsaleable, reducing the economic opportunity. For such reasons a gap in the professional infrastructure in a community can become a self-generating cycle, discouraging new professionals from entering practice, and exacerbating the difficulties for those who remain.

Attraction and retention

The proportion of 'professions' in rural workforces is lower than for Australia generally. In 2001, 20 per cent of the urban labour force was professional workers. 11 per cent of the labour force in rural / regional areas were professionals.¹ Ageing of professionals compounds this. It has been argued that at least two younger professionals may be required to replace a retiring professional.² Younger health professionals

¹ Prof. Miles, RL, Marshall, C, Rolfe, J, and Noonan, S, *The Attraction and Retention of Professionals to Regional Areas*, (2003) <http://www.dtrdi.qld.gov.au/dsdweb/v3/documents/objdirctried/nonsecure/pdf/6751.pdf> <accessed 3 April 2008>.

² Miles et al, above n 1, 12.

may also be more transient.³ Reports on lawyers also refer to the 'transient whims'⁴ of Generations X and Y with young lawyers intending to 'do their time' before relocating to metropolitan areas.⁵

Much of the concern about rural and regional practice focuses upon recruitment. Initiatives have included preferential transfer treatment, HECS-debt concessions, housing benefits, and scholarships.⁶ There does not seem to have been a synthesis across professions nor a serious attempt to consider a structured approach to issues that may be common to all professions.

The media has reported a 'wave' of personal recruitment incentives, including cash, tax breaks, and 'wooing' of professionals.⁷ The planning profession has suggested relocation allowances, income tax concessions and salary packing options for mortgage / rent assistance.⁸ The NSW Government pays the course fee (\$1500) for professionals undertaking accelerated teacher-training at Charles Sturt University for work in an area of teaching need.⁹ Legal Aid WA offers a Country Lawyers Graduate Program with a three-year rural placement. Salary packaging and housing allowances are offered, supported by mentoring.¹⁰ The program is advertised as a rural 'adventure', rather than a pathway to a long-term rural career. Recruiting professionals from overseas is also used (particularly in health) though racial and professional issues can emerge.¹¹

Support and networking are sometimes used to aid retention in health and other professions. For example the Rural Educators Network in Queensland arranges professional placement in rural areas, and teaching resources for pre-service teachers, schools and communities in rural areas.¹² The Queensland Rural Women's Network provides self-development opportunities to women involved in rural business.¹³ Linked to networking are partnerships for transfer and rotation.¹⁴ This helps ensure that under-resourced rural professionals have mentoring and career development opportunities.¹⁵

Miles et al found no 'one size fits all' in health. They suggest solutions demand a 'collaborative effort' involving local, state and federal government bodies, professional bodies and regional development groups.¹⁶ A 2006 report into the attraction and retention of planning professionals acknowledged that linkages with other professions ought to be considered.¹⁷ Earlier research by Humphreys et al into rural general (medical) practitioners advocated a 'broad, integrated rural retention strategy'.¹⁸

Innovation in professional services might reduce pressures or increase professional satisfaction. It can be argued that telecommuting, local agents, or the air ambulance are alternative service options. Rural Transaction Centres provide financial and telecommunication services, access to employment schemes

³ Miles et al, above n 1, 11.

⁴ Bennett, M, 'Shortage of Juniors has Law Firms Scrambling', *The West Australian*, 12 January 2008, 71.

⁵ Shine Lawyers, *Legal Recruitment—How the Skills Shortage is Taking its Toll*, http://shine.com.au/pages/hereSay-ArticlesLawyers/october-06/article_03_Legal_Recruitment.html <accessed 12 March 2008>.

⁶ Herrington, A and Herrington, J, *Using the Internet for professional development: The experience of rural and remote professionals*, (2006) Paper Presented at the 23rd Annual ASCILITE Conference: Who's Learning? Whose Technology?, 3-6 December 2006.

⁷ Tomazin, F, 'State Schools Struggling to Find Teachers', *The Age*, 28 January 2008, 3.

⁸ *The NSW Planning Profession: Looking Forward—Report of the Planning Professionals Working Group to the Minister of Planning* (2006), http://www.planning.nsw.gov.au/settingthedirection/pdf/ppwg_report_nov06.pdf <accessed 28 January 2008>., 4.

⁹ Berry, M, 'Mid-career Teachers', *The Sydney Morning Herald* (My Career Supplement), 6 February 2008, 2.

¹⁰ Country Lawyers Graduate Program, <http://www.legalaid.wa.gov.au/LAServices/asp/default.aspx?Page=Employment%5CCountryLawyers.xml> <accessed 22 March 2008>.

¹¹ Miles et al, above n 1.

¹² Rural Education Network, <http://www.rural.edu.au/cms/display/index.php?vsite=5&Area=278&SubSectionOf=0> <accessed 8 April 2008>.

¹³ Queensland Rural Women's Network, <http://www.qrwn.org.au/network.htm> <accessed 8 April 2008>.

¹⁴ Miles et al, above n 1.

¹⁵ *The NSW Planning Profession: Looking Forward—Report of the Planning Professionals Working Group to the Minister of Planning* (2006), above n8, 8.

¹⁶ Miles et al, above n 1.

¹⁷ *The NSW Planning Profession: Looking Forward—Report of the Planning Professionals Working Group to the Minister of Planning* (2006), http://www.planning.nsw.gov.au/settingthedirection/pdf/ppwg_report_nov06.pdf <accessed 28 January 2008>.

¹⁸ Humphreys, JS, Jones, MP, Jones, JA, and Mara, PR, (2002), 'Workforce retention in rural and remote Australia: determining the factors that influence length of practice', 176(10) *Medical Journal of Australia* 472-476.

and library services, facilities for visiting professionals, access to Government agencies (Medicare, Centrelink).¹⁹ In New South Wales, non-profit Community Technology Centres act as service hubs for information technology, online education and training, and some commercial services.²⁰ Alternative modes of service delivery are also being used, such as Indigenous Health Workers and the enhanced role by the nursing profession.

There are many attraction and retention initiatives being trialled or used, but there is no synthesis of learning across professions, little systematic interaction between them, and no basis for continuous scientific learning and refinement.

The welfare of professionals

Studies by the CSIRO indicate that for their staff, career considerations rate highly in decisions to work in a rural / regional area. Limitations to professional development are a disincentive.²¹ Humphreys et al highlighted that professional considerations were important factors in rural doctor retention.²² Professional support and on-call arrangements were major issues, affecting recreational leave, family or continuing education. Miles et al also note this and that a lack of mentoring is a contributor.²³ White et al found that 94 per cent of rural doctors agreed or strongly agreed that access to continuing education programs contributes to confidence in rural practice; 93 per cent agreed or strongly agreed that access to continuing education reduced professional 'isolation'.²⁴ Overall, 80 per cent of their respondents indicated that they would be less likely to remain in rural practice without access to continuing education.

In research of allied health professionals in regional Victoria, Stagnitti et al found that clear job descriptions and comprehensive orientation programs were lacking, contributing to stress and decreasing intention to stay.²⁵ They note that this lack of professional support reinforces the categorisation of rural professional practice as a 'nursery'. This study also recognised (positively) that rural practice fosters autonomy and provides clinical and management work experiences. In both accounting and law limited local professional development has been cited as a disincentive for rural practice. Continuing education delivered electronically has perhaps alleviated this.²⁶

Humphreys et al found that the availability of services and geographical attractiveness played a role.²⁷ Miles et al found that personal and family issues were highly influential factors.²⁸ For professionals with young families in particular, the availability of social / support networks was crucial. The lack of employment opportunities for spouses, or lack of educational opportunities for children, operated as a disincentive. This was heightened where the professional's partner was also a professional.

The completeness of the network of services is important. Adequate medical services or quality affordable accommodation, for example, are non-existent in some communities. This operates as a disincentive for families: 'if Johnny falls out of a tree in Longreach, he shouldn't have to fly to Townsville, Rockhampton or

¹⁹ Rural Transaction Centres, <http://www.regionalpartnerships.gov.au/rtc/general.aspx> <accessed 8 April 2008>.

²⁰ Community Technology Centres Association, <http://www.ctca.net.au/> <accessed 8 April 2008>.

²¹ Greiner, R and Allan, M (2001), What motivates people to join CSIRO's remote laboratories and the perceived benefits and challenges of living and working in remote locations, Discussion Paper—CSIRO Sustainable Ecosystems, Davies Laboratory, Townsville.

²² Humphreys et al n18.

²³ Miles et al, above n 1.

²⁴ White, CD, Willett, K, Mitchell, C, Constantine, S, (2007) 'Making a difference: education and training retains and supports rural and remote doctors in Queensland', *Rural and Remote Health* 7 (online), 2007: 700. Available from: <http://www.rrh.org.au>.

²⁵ Stagnitti, K, Schoo, A, Dunbar, J and Reid, C, (2006) 'An Exploration of Issues of Management and Intention to Stay: Allied Health Professionals in South West Victoria, Australia', 35(4) *Journal of Allied Health*, 226.

²⁶ Rumney, I, (2006) 'The Grass is Definitely Greener', *Charter*, (April 2006), 40-42.

²⁷ Humphreys et al, n18.

²⁸ Miles et al, above n 1.

Brisbane to have the broken arm straightened and set for lack of availability of a doctor to provide anaesthesia'.²⁹ Given the demographic shift from male to female professional workforces, and challenges for women in combining professional careers with families, gender is an area of increasing concern. However, neither the literature nor the survey highlight gender issues to the degree that the researchers anticipated.

Possible solutions to address such issues have been canvassed. These include employment for spouses, targeted recruitment of professional couples, and flexible arrangements to couples with children and ensuring that professionals with children are assisted with educational opportunities. The promotion of 'lifestyle' options was suggested in the research conducted by Miles et al. It was acknowledged that benefits of a particular region and community were a key attraction, along with professional experience. It was suggested that collaboration between industry, community and government was essential to addressing these issues and that undergraduate students should be given opportunities for placements in rural areas. Research by Adams et al into the experiences of students who undergo rural placements identified several professional, personal and community / social components and suggest efforts to promote rural practice should focus on these systemic matters.³⁰

Largely overlooked in the literature are professional and financial risks to rural professionals. Stagnitti et al found that rural positions in allied health were financially unrewarding, with a risk of deskilling.³¹ Miles et al found a concern amongst rural professionals about indemnity and insurance, intensifying the trend towards deskilling in the procedural medicine professions.³²

It has already been noted that practice in a services-deprived area is likely to be unappealing. Risks posed by a lack of services upon the family of the professional (e.g. access to adequate medical services) are a disincentive. If a professional is forced to work in an unconventional manner, or without appropriate 'tools' or support, they expose themselves to legal and professional risks. Commercial issues also exist when a professional builds goodwill in a rural practice that may be unsaleable. Anecdotally, risk is significant but the literature is surprisingly silent on this or on the legal and institutional constraints upon innovation and alternative service models.

As with the workforce issues, whilst there is a degree of concern and experimentation about professional's welfare, there is a lack of synthesis of knowledge across professions. This results in a hit-and-miss addressing of these matters, and (we believe) a failure to exploit opportunities to more comprehensively tackle this fundamental set of challenges.

Moving to systemic resolution

Out of this action-learning approach, a re-conceptualisation of the issues has emerged, with a number of directions for solution. This has led to a suite of research questions to drive a research program.

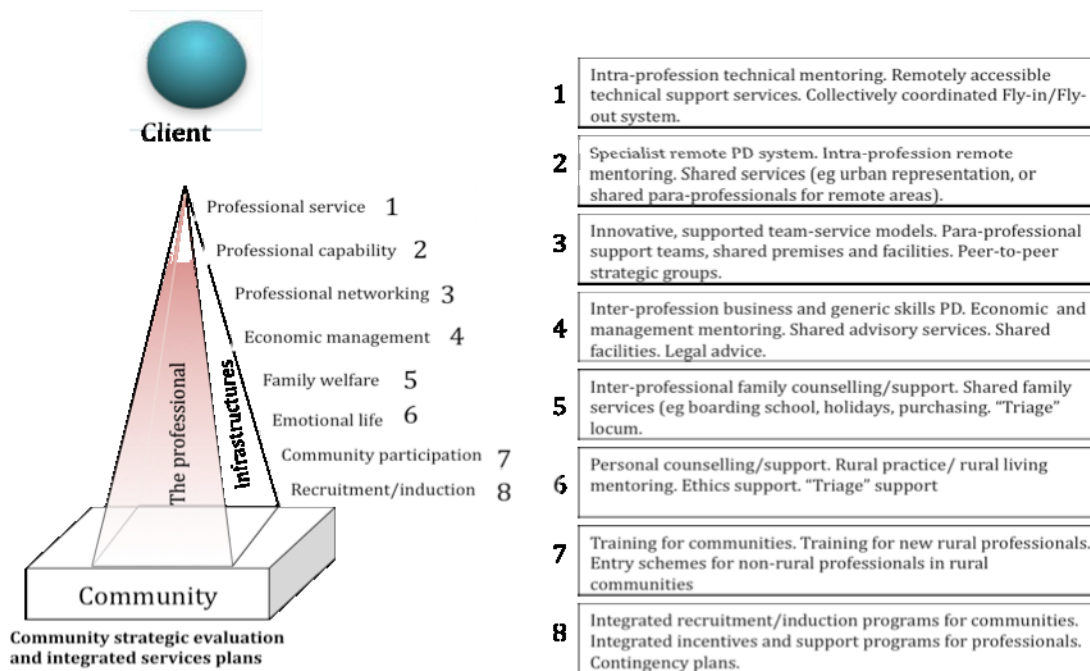
The abstract conceptualisation of the challenge is a pyramid of issues. Those focused on the client and technical professional practice at the top, and those concerned with generic practice issues, family and welfare and community emerge progressively down the pyramid. Two dimensions exist: the professional, and the infrastructures within which they operate.

²⁹ Miles et al, above n 1, 15.

³⁰ Adams, ME, Dollard, J, Hollins, J, and Petkov, J, (2005) 'Development of a questionnaire measuring student attitudes to working and living in rural areas', *Rural and Remote Health* 5, 327.

³¹ Stagnitti et al, above n 25.


³² Miles et al, above n 1, 15.



This conceptualisation opens up new perspectives on efficient ways to address rural professional issues, with emphasis on shared concerns. Towards the top end of the pyramid, whilst technical issues may be discipline specific, the informational technologies and methods for dealing with them (e.g. methods and technologies for education within CPD) are not. As one moves down the pyramid both the informational methods, and the substantive content of the information becomes increasingly common across professions. At all levels, there are opportunities for sharing the infrastructure burden. This strongly suggests significant economies of scale and learning are available but untapped across the professions.

The 14 identified research questions reflect the opportunity for a disciplined research and applications strategy spanning professions which could deliver significant benefits to the professions and gains in rural social inclusion.

1. What is the true social and economic cost of disadvantage in rural access to professional services
2. What are the specific professional service needs, in what configurations of different types of rural community?
3. What innovative methods of supply have been used for professional services in rural remote areas? What have been the successes and failures?
4. What unique platform of capabilities (knowledge, skill, teams, data, systems) is necessary for effective rural professional services delivery? What strategies are most likely to ensure its' availability?
5. What are the capabilities required of graduates, to improve performance and retention in rural and remote settings? What strategies can enhance these capacities?
6. What innovations or efficiencies can improve continuing professional development participation, effectiveness and efficiency?
7. What incentives are effective in encouraging recruitment and retention to a rural area?
8. What role is there for the community in recruiting, and maintaining professional services in rural areas?
9. What is the optimal role for professional associations in supporting rural professionals?

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10. Is there a role for rural and regional intra- or inter-professional mentors?
 11. What are the best ways of addressing the emotional or personal needs of the rural professional?
 12. What support does the family unit of the rural professional require?
 13. What opportunities exist to improve recruitment for rural professional practice?
 14. To what extent might reform of rules governing professional practice assist access to professional services?

Collaboration from professional service organisations, rural communities and researchers in pursuing systemic solutions across disciplinary boundaries through this research program is invited.

Presenter

Paul Martin joined UNE as the Director of the Australian Centre for Agriculture and Law in 2005. Paul has many years of business experience, including as a director and substantial shareholder in high technology enterprises, as a director of a successful venture capital firm, and as a member of the NSW Innovation Council and the Australian Government Pooled Development Funds Registration Board. He was also a senior Visiting Fellow at the Australian Graduate School of Management for 20 years, responsible for a range of programs in both law and entrepreneurship. He has authored books and studies on taxation, natural resources, and negotiation; and has advised local and international corporations and governments on strategy in a range of areas, including taxation leveraged investment, harvesting and shearing robotics, chemicals, health care and high technology.

