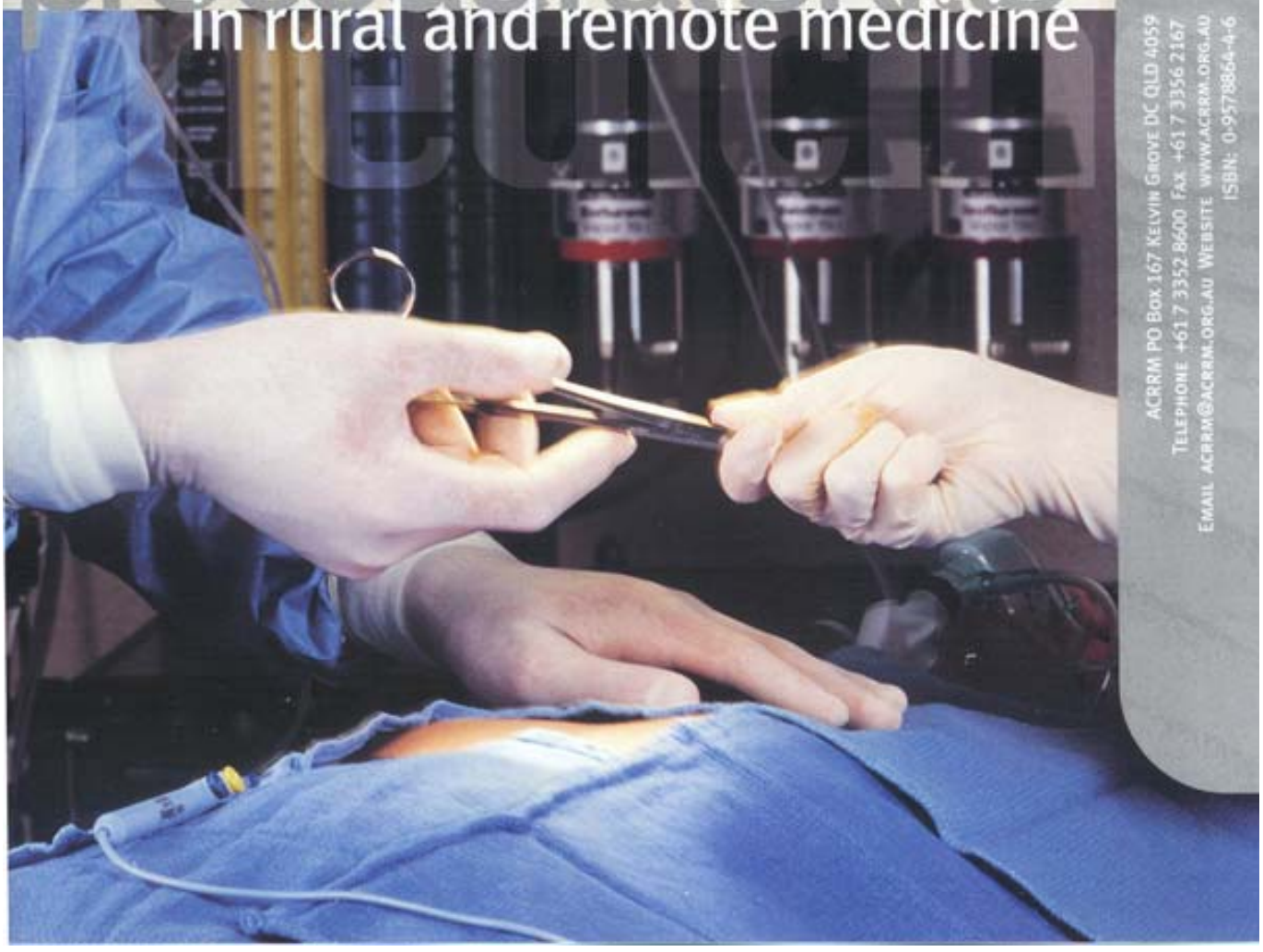
THE AUSTRALIAN COLLEGE
OF RURAL & REMOTE MEDICINE

barriers to the maintenance of

procedural skills in rural and remote medicine



ACRRM PO Box 167 Kelvin Grove DC QLD 4059
Telephone +61 7 3352 8600 Fax +61 7 3356 2167
Email acrrm@acrrm.org.au Website www.acrrm.org.au
ISBN: 0-9578864-4-6

Research reports on:

Barriers to the maintenance of procedural skills in rural and remote medicine
&
Factors influencing the relocation of rural proceduralists

ACRRM Research Projects
2002

Contact details:

Australian College of Rural and Remote Medicine
PO Box 167
Kelvin Grove DC Qld 4059

Telephone	07 3352 8600	Email	acrrm@acrrm.org.au
Fax	07 3356 2167	Website	www.acrrm.org.au

ISBN

ISBN 0 - 9578864 - 4 - 6

Copyright

Contents

REPORT: FACTORS INFLUENCING THE RELOCATION OF RURAL PROCEDURALISTS

ATTACHMENTS

SUMMARY REPORTS

Barriers to the maintenance of procedural skills in rural and remote medicine

It is evident that rural and remote doctors are required to serve the needs of their communities with regard to the delivery of medical services and that the provision of an appropriate service is high on the list of professional and personal satisfaction measures which most doctors apply to their practice. The correlation in rural medicine between need, service, professional capacity, training and support represents a key factor in practice profiles and in a doctor's preparedness to remain in rural practice.

Evidence gathered from long serving rural doctors confirms the relationship between retention and a doctor's ability to practice in way that exemplifies their vision of medical practice. One of the most powerful aspects of that vision is the delivery of procedural medicine to rural and remote communities that is accessible, safe and fulfilling.

Procedural practice in rural Australia is not as easy to maintain as in former times. There is a growing body of evidence that demonstrates the multiple barriers to the attainment and maintenance of procedural skills and the capacity to use them.

Outcomes

This research activity was designed to provide current indications of the barriers to procedural practice which rural and remote doctors considered were the most difficult to overcome or had the most immediate effect. In response, the project established the basis for addressing these barriers and for making recommendations to appropriate agencies. The immediate outcomes of the project are:

- A typology of issues with the capacity to influence the attainment and maintenance of procedural skills in rural and remote medicine;
- Evidence of the priorities of rural and remote doctors;
- The establishment of a process of discussion and joint activity with the Rural Doctors Association of Australia whereby both the education and training issues and the professional and industrial issues can be identified; and
- Establishment of agendas by both organisations, in consultation with key partners in the Workforce Agencies and others, to propose solutions and to make recommendations to the appropriate agencies.

To date, working parties of ACRRM and RDAA are developing these strategic agendas and Issues Papers and are currently engaged in reporting current findings to AHMAC.

Particular issues are raised in the ACRRM study which refer to:

- Ensuring that priority items are directed to the appropriate agency;
- Providing data on particular groups, such as the views of female proceduralists; and
- Developing differential data on particular states.

Results

Predictably, indemnity issues dominate the recommendations by doctors for immediate action, however it is interesting to note the degree of consensus on a national basis to the top ten

issues that are viewed as the most potent barriers to the maintenance of procedural skills. Aggregate results indicate the following priorities:

- Indemnity and other insurance costs;
- Changing patterns of litigation;
- Maintenance of multiple standards, benchmarks and qualifications;
- Costs of upskilling versus income recovery;
- General undervaluing of the procedural GP;
- Pressures of maintaining a broad range of skills;
- Ability to take leave for training opportunities –time constraints, professional limitations;
- Access to appropriate skills programs – type, locality, cost;
- Current trends towards centralisation of services;
- Changing preferences for combining medical and social/family life; and
- Need to achieve multiple standards and benchmarks across medical disciplines.

Priorities identified by female practitioners are:

- General undervaluing of the procedural GP;
- Costs of upskilling versus income recovery;
- Indemnity and other insurance costs;
- Stress and pressures of procedural practice;
- Ability to take leave for training opportunities –time constraints, professional limitations;
- Levels of colleague or locum support when required;
- Access to appropriate skills programs – type, locality, cost;
- Pressures of maintaining a broad range of skills;
- Current trends towards centralisation of services;
- Maintenance of multiple standards, benchmarks and qualifications; and
- Costs of professional memberships.

This short study employed a relatively small sample to gain an indication of priority issues, however the methodology and analysis has been rigorous, the research generated a 90% response rate and the results form the basis for organisations and government to pursue the issues within their scope of operation, in greater detail, in the immediate future.

Factors influencing the relocation of rural proceduralists

In addition to understanding the barriers to maintaining procedural skills in rural medicine, it is useful to examine the principal issues influencing those doctors who leave procedural practice and relocate to provincial and urban situations.

ACRRM data indicates that remaining in procedural practice is more difficult and complex today than in former times, for a number of industrial, professional, social and environmental reasons. The correlation in rural medicine between need, service, professional capacity, training and support forms a crucial equation in determining the doctor's preparedness to remain in rural practice.

As part of its member services, ACRRM continues to serve a number of former rural doctors who now practice in provincial and metropolitan settings. The national cohort of ACRRM members in RRMA 1-3 was invited to contribute to a study that investigated:

- underlying reasons for decisions to change location and form of practice;
- the role in these decisions of barriers to the maintenance of procedural practice; and
- the role in these decisions of other issues – lifestyle, family, personal well-being which are currently well documented.

This work also develops a knowledge base for ACRRM in terms of:

- a forecast of their practice intentions in the future;
- the ongoing support requirements of these doctors; and
- the potential for engagement of these doctors in support and mentorship roles for future rural or procedural doctors.

As a result of this work, a series of strategies has been developed to engage this group more closely in the mentoring of the next generation of proceduralists. The Terms of Reference for this activity are included in the full report.

Acknowledgements

ACRRM wishes to acknowledge the funding support provided for this project by the Commonwealth Department of Health & Ageing as well as the input of the following groups:

Rural procedural and education/training respondents in all States and Territories;
Dr Bruce Chater, Vice President ACRRM, and the ACRRM Procedural Medicine Working Group Dr Les Woollard, Dr Mike Glover, Dr Charles Nadin, Dr Ruth Stewart, Dr Stephen Holmes, Dr Brian Bowring, Dr Luke Edwards, Dr Peter Baker, Dr Dan Manahan, Ms Marita Cowie and Ms Anna Nichols;
Dr Ruth Stewart and members of the ACRRM Women in Rural Practice Sub-Committee;
The ACRRM Research team: Ms Anna Nichols, Ms Leisa-Maree Leontjew and Ms Mary-Jane Streeton
Dr Ken Mackey, President RDAA, the RDAA Procedural Practice Committee
Dr Nola Maxfield and the RDAA Women's Group.

Barriers to Maintenance of Procedural Skills in Rural and Remote Medicine

1. INTRODUCTION

ACRRM has been commissioned, as part of its Commonwealth Government Integrated Training grant, to develop data on barriers to the retention of procedural skills in rural and remote medicine and to provide a firm basis for recommendations to the Commonwealth, developed in concert with training and workforce support organisations.

The provision of procedural services by generalist doctors has been a cornerstone of Australia's rural and remote medical services delivery system. Evidence clearly indicates that the procedural skills base available in rural and remote Australia is declining at an alarming rate. This is linked not only to the decline in rural proceduralists but also to a declining number of specialists in rural areas.

2. ISSUES IN THE LITERATURE

2.1 Rationale

The value and importance of maintaining the procedural skills base in Australia has been widely acknowledged by Government[1] [2] [3], Specialist Colleges[4] and independent researchers[5]. There is clear evidence to suggest that locally based procedural services are at least as safe as city-based services for low risk procedures, that they often result in better health outcomes and are at times (particularly in the case of medical emergencies), essential. Provision of locally-based medical services is also consistent with rural communities' preferred model of service[6] and erosion of these services would be viewed by most rural people as a major detriment to their quality of life. Further to this there is a clear link between procedural skills maintenance and the recruitment and retention of rural doctors.

The reflections below of a rural doctor in Canada are instructive of many of the key issues facing Australian rural proceduralists.

> *The issue of obstetrics in family practice never bothered me when I worked in a large urban area. Obstetrics was a non-issue: the obstetricians did all the deliveries. Now, however, I have worked in a small rural Manitoba hospital for three years and the 'problem' of obstetrics becomes larger every year. My colleagues and I find ourselves in a very real dilemma: should we go on offering obstetrical services to our community? We doubt that we are alone in our misgivings…*

---

[1] Wells (2001) 'Underserviced Communities: Australia' in AMWAC and DHAC (2000), *5th International Medical Workforce Conference 2000 Proceedings*. Sydney.
[2] AMWAC (1996) '*The Medical Workforce in Rural and Remote Australia*'. AMWAC Report. 1996.8. Sydney.
[3] Best J (2000) '*Rural Health Stocktake'*. Advisory Paper to the Commonwealth Department of Health and Aged Care. Canberra.
[4] Bruening M, Maddern G (1998). 'A Profile of Rural Surgeons in Australia'. *MJA* 169:324-326.
[5] Stocks N, Peterson C (1994). '*Rural Health and specialist medical services.* National Centre for Epidemiology and Population Health. Melbourne: ANU.
[6] Humphreys J, Mathews-Cowey S, Manderson L (1997). 'Factors in Accessibility of general practice in rural Australia'. *MJA* 166.

Abruptio placenta, 36 weeks, FH 120 and cesarean section one and a half hours away. I sit in the ambulance. As contractions intensify the woman cries, 'Will the baby die? Please don't let the baby die!" A head is presenting: "Stop the ambulance!" My ambulance attendants, volunteers from town watch as I guide the tiny baby out. At first the baby is limp, but with massage and oxygen, the little limbs flex and a newborn's cry fills the small space. A new mother cries with relief. Two grown men experience the ageless awe of witnessing a birth for the first time. And I experience the overwhelming relief that comes with the experience of each healthy newborn. All of us are aware of our unshed tears…

What are we to do about obstetric emergencies if we don't do obstetrics?

These comments were to become all the more poignant as a few years hence, the doctor left and her colleague consequently ceased procedural practice, leaving the community without obstetric services.[7] This review provides some exploration of the available evidence on the systemic impediments to the maintenance of these advanced skills, which may shed some light upon potential approaches to arresting the trend.

2.2 Rural Proceduralist Workforce Profile

2.2.1 Practice Characteristics

Governments have recognized the unique nature of rural generalist practice, its incorporation of a much broader scope of practice than its urban counterpart and in particular its common involvement of procedural practice.[8] [9] The expectation that procedural services will be performed is in fact incorporated into AMWAC calculations of the sufficiency of medical workforce supply in rural and remote Australia.[10] However little national data has been produced to date, which adequately measures this phenomenon.

Some indicative statistics of the extent of proceduralism in rural and remote Australia include AIHW data that procedural services accounted for less than 1% of GP services in capital cities but for between 3-5% of encounters in rural and remote areas and that 7.5% of non-rural GPs in capital cities work in hospitals, compared with up to 75.6% in remote areas.[11] It has been suggested that the former figure underestimates the extent of these differences, as it does not incorporate data on key rural services such as Aboriginal Medical Services and the Royal Flying Doctor Service. The latter figure has also been deemed by AMWAC to underestimate the extent of the rural/urban difference.[12]

Wise et al in 1994 found that rural doctors were significantly more likely to practice a range of procedural skills and practice them more frequently than their urban counterparts. Between 59- 91% of doctors surveyed practiced procedural skills occasionally and over 75% practice these at least monthly. The procedural areas that

[7] Hutten-Czapski P (1998). 'Life on Mars – practising obstetrics without an obstetrician'. *CJRM* 3(2):69.
[8] AMWAC (2000). 'General Practice Workforce: Supply and Requirements'. AMWAC Report 2000.2. Sydney.
[9] Britt H, Miller GC, Valenti L (2001) 'Its different in the bush: A comparison of general practice activity in metropolitan and rural areas of Australia 1998-2000'. AIHW Cat No. GEP 6. Canberra: AIHW (General Practice Series No. 6).
[10] AMWAC (1998). 'Sustainable Specialist Services: A compendium of requirements'. AMWAC Report 1998.7. Sydney.
[11] AMWAC (2000). 'The General Practice Workforce in Australia: Supply and Requirements'. AMWAC Report 2000.2. Canberra.
[12] Ibid.

demonstrated the greatest rural-urban divide were in accident and emergency medicine, emergency surgery, operative obstetrics and anaesthetics. [13]

This prevalence and dependence upon rural proceduralism is also important in other comparable countries such as Canada[14] and the United States[15].

A survey of rural doctors in Queensland (1996-97) found fully private doctors comprised two thirds of respondents and the remainder being in full-time salaried positions with the right of private practice with a majority of all respondents (68.4%) undertaking procedural work.[16]

2.2.2 Geographic Distribution

A recent survey of rural proceduralists in New South Wales conducted by the state Rural Doctors Network (NSW RDN) found that as at 30 June 2001 there were 205 known proceduralists in rural areas in the state (RRMA 4-7), with the majority (approximately 75%), located in RRMA 5 localities (i.e. rural with less than 10,000 population). Of the 74 towns identified as having proceduralists, there was an average of 3.1 per town in RRMA 4 and 5 and 1.8 in RRMA 7.[17] These findings are supported by a 1995 study of 230 rural doctors in New South Wales that found a considerable number of procedural services performed in all small towns, with the rates performed in towns with a population size range of 5001 to 10,000 to be much greater than for all other small town categories.[18]

2.2.3 Gender Distribution

Studies indicate that considerably fewer female rural doctors perform procedural medicine than males. Dickinson et al found that depending on age, 8-18% of surveyed women performed procedural medicine, as compared to 73-91% of men surveyed.[19] Only 13% of female rural doctors surveyed by RDA NSW were proceduralists compared with 25% of males.[20] All the above-mentioned studies indicate that, of the women performing procedural skills, the vast bulk is procedural obstetricians. These findings correspond with a wider national trend toward female GP's working fewer hours and seeking fewer specialist qualifications which is likely to be related to their desire to balance family and work responsibilities.[21] [22] These findings have significant

---

[13] Wise AL, Hays RB, Adkins PB, Craig ML, Mahoney MD, Sheehan M, Siskind V, Nichols A (1994). 'Training for rural general practice'. *MJA* 161:314-318.
[14] Chan B (1999). *'Atlas Reports: Use of Health Services'. Report No.1: Supply of Physicians Services in Ontario*. Institute for Clinical Evaluative Sciences. Toronto.
[15] Baldwin LM, Hart LG, West PA, Norris TE, Gore E, Schneeweiss R (1995). 'Two decades of experience in the University of Washington Family Medicine Residency Network: practice differences between graduates in rural and urban locations'. *J Rural Health* 11(1):60-72.
[16] Sondergeld S, Nichols A (1998). 'Rural proceduralists: An endangered species.' Report of the Queensland Rural Indemnity Study, 1997. *Aust J Rural Health* 6:126-131.
[17] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[18] Dickinson J, Hickner J, Radford S (1995). 'The changing characteristics of rural GPs'. *Aust Fam Physician* 24(7):1272-1278.
[19] Ibid.
[20] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[21] DHAC (2001). 'The Australian Medical Workforce' Occasional Papers: New Series No.12. Canberra: AGPS.

implications for future projections given the increasing feminization of the rural workforce with over 60% of the anticipated registrar workforce being female.

2.2.4 Age Distribution

Dickinson et al have found that the likelihood of rural doctors performing procedural medicine for both males and females decreases with age with the 35-39 years age group most likely to practice proceduralism.[23] This corresponded with the more recent work of both Dunbabin[24] and the RDA NSW,[25] which found the average age of surveyed proceduralists in rural practice to be 45.8 years and 47.7 years respectively which is still under the national average age for rural doctors. The wider and more frequent practice of procedural skills by younger doctors is also apparent in the United States,[26] however, while procedural skills appear to be practised most commonly by younger doctors, many of these may practice within the hospital system in urban and provincial settings and there is considerable evidence to point to an ageing rural doctor population. This is exacerbated by trends toward younger doctors tending to stay shorter periods in rural areas and being prepared to work fewer hours.[27] [28]

2.3 Procedural Services Decline

Statistics indicate a long-term trend toward diminishing procedural skills in rural Australia, with a steep acceleration of this trend in the recent times. It is noteworthy that the more recent decline appears to be most apparent in the area of procedural obstetrics. The process of rural deskilling is of particular concern given studies in the United States by Nesbitt, indicating that once these services have ceased, proceduralists are unlikely to return to proceduralism.[29]

Britt et al in their comprehensive national study found that while rural doctors continued to provide procedural services at a much greater rate than their urban counterparts, their provision of such services had decreased considerably in the past 8 years.[30]

A 1991 study found that there were 263 procedural obstetricians in 86 communities in New South Wales[31]. 10 years hence, there are now 97 fewer procedural obstetricians (37% decrease) and there are 12 fewer towns serviced by such practitioners. Furthermore, of the

---

[22] Hirsch N, Calcino G, Fredericks C (2001). 'DHAC, Rural Doctors and Retention' Paper presented to the 6th National Rural Health Conference.
[23] Dickinson J, Hickner J, Radford S (1995). 'The changing characteristics of rural GPs'. *Aust Fam Physician* 24(7):1272-1278.
[24] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[25] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[26] Wigton RS, Nicholas JA, Blank LL (1989). 'Procedural skills of the general internist. A survey of 2500 physicians'. *Ann Intern Med* 15:111.
[27] DHAC (2001). 'The Australian Medical Workforce' Occasional Papers: New Series No.12. Canberra: AGPS.
[28] Hirsch N, Calcino G, Fredericks C (2001). 'DHAC, Rural Doctors and Retention' Paper presented to the 6th National Rural Health Conference.
[29] Nesbitt TS, Arevalo JA, Tanji JL, Morgan WA, Aved B (1992). 'Will family physicians really return to obstetrics if malpractice insurance premiums decline?' *Journal of the American Board of Family Practice* 5:413-418.
[30] Britt H, Miller GC, Valenti L (2001) 'Its different in the bush: A comparison of general practice activity in metropolitan and rural areas of Australia 1998-2000'. AIHW Cat No. GEP 6. Canberra: AIHW (General Practice Series No. 6).
[31] Wollard L, Hays R (1993). 'Rural Obstetrics in NSW'. *Aust NZ J Obstet Gynaecol* 33:240-242.

surveyed rural doctors' future intentions, 20-33% of these intended to cease practice within 5 years with a further 10-15% undecided. With obstetrics being the most prevalent area of attrition (33% leaving and 15% undecided). [32]

The Northern Rivers Division of General Practice (NRDGP) suggests a 17% loss of procedural obstetricians and 11% loss of procedural anaesthetists in the past 12 months in New South Wales.[33]

A recent report into the proceduralist workforce in Far North Queensland by its Division of General Practice (FNQDGP) has found within its region over the 2000 to 2001 period, a decline in procedural practitioners from 13 to 6 will occur by 2003, with another 2 doctors ceasing private procedural practice, a decline of almost 50% in three years, with the greatest decline being in the area of obstetrics.[34]

New South Wales based studies have found an overall reduction in rural proceduralist obstetricians from 257 to 167 (35% decrease) and in rural proceduralist anaesthetists from 128 to 105 (18% decrease). [35] A South Australian survey found that of the 204 practising proceduralist obstetricians in 1997 (with an 82% response rate) at least 26.3% of respondents reported having ceased procedural services over the past 12 months.[36]

2.4 Rural proceduralist competence and confidence

A number of studies have challenged the orthodox view that competency in procedural skills requires continuing practice of minimum numbers of procedures, which have led at times to skeptical attitudes toward rural proceduralism.[37] There is ample evidence to support the contention of safe quality practice of procedural medicine in the rural and remote context despite infrequent practice, both in Australia,[38] [39] [40] [41] [42] New Zealand,[43] Canada,[44] [45] [46] the

[32] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[33] Kurucsev K (2002). 'The medical indemnity crisis'. *GP Speak Magazine. NRDGP* 19 Feb 2002. Lismore.
[34] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[35] Ibid.
[36] Watts RW, Marley JE, Beilby JJ, MacKinnon RP, Doughty S (1997). 'Training, skills and approach to high-risk obstetrics in rural GP obstetrics'. *Aust NZ J Obstet Gynaecol* 37(4):424-426.
[37] Jackson WD, Diamond MR (1993). 'Procedural Medicine: Is your number up?'. *Aust Fam Physician* 22(9):1633-1639.
[38] Cameron B (1998). 'Outcomes in rural obstetrics, Atherton Hospital 1981-1990'. *Aust J Rural Health* 6(1):46-51.
[39] Kitchen W, Ford G, Orgill A, Richards A, et al (1984). 'Outcomes of infants with birth weight 500 to 999 gm: a region study of 1979 and 1980 births' *J Paediatrics* 104:921-927.
[40] Burns RJ, Willoughby JO (1991) 'South Australian carotid endarterectomy study'. *Med J Aust* 154:650-653.
[41] Watts RW (1992). 'A 5 year prospective analysis of the efficacy, safety and morbidity of epidural anaesthesia performed by a GP anaesthetist in an isolated hospital'. *Anaesth Intens Care* 20:348-353.
[42] Woolard LA, Hays RB (1993). 'Rural Obstetrics in NSW'. *Aust NZJ Obstet Gynaecol* 33(3):240-242.
[43] Rosenblatt RA, Reinkin J, Shoemack P (1985). 'Is obstetrics safe in small hospitals? Evidence from New Zealand's regionalized prenatal system'. *Lancet* 1985 429-432.
[44] Brown JL (1980). 'The role of the community hospital in a regional program of obstetrics and neonatal care'. *Clin Perinat* 7:197-203.
[45] Black DP, Fye IM (1984). 'The safety of obstetric services in small communities in Northern Ontario'. *Can Med Assoc J* 130:571-576.
[46] Peddle LJ, Brown H, Buckley J, Dixon W, Kay J, Muise M, Rees E (1983). 'Voluntary regionaliszation and associated trends in perinatal care: the Nova Scotia Reproductive Care Program'. *Am J Obstet Gynaecol* 145(2):170-176.

United States,[47] [48] and the United Kingdom. [49] These studies furthermore have pointed to poorer outcomes where procedural services are not available locally.

There is evidence to suggest the importance of appropriate initial procedural training as the key determinant of procedural competence rather than ongoing frequency of practice.[50] Evidence also points to inadequacies in initial procedural skills training in Australia [51] [52] [53] and also in Canada.[54]

The demonstrated competence of rural proceduralists notwithstanding, the decision to cease practice is more likely to be linked to their confidence in their perceived capacity which some studies suggest may be an operative factor.

Importantly, Innes and Strasser found the perception that skills were not being maintained due to a lack of sufficient deliveries as being a major factor in some rural proceduralists' decision to cease procedural practice.[55] While, Watts et al have found that rural proceduralists' comfort in providing obstetric care was related to the length of training and number of deliveries per year.[56]

Evidence also suggests that practising procedural skills is important to a non-specialist doctor's confidence when they are called upon to perform emergency procedures. One noted proceduralist has commented that regular performance of procedural skills makes necessary performance in emergency situations safer and stressed the importance of knowing one's limitations and appreciating when to refer.[57] The link between performance of procedural tasks and confidence in procedural skills was also evidenced in a recent study of rural doctors in New South Wales, which found doctors who were not on-call tended to report much lower confidence in performing emergency medicine procedures.[58]

The confidence and enthusiasm of rural proceduralists can be undermined by prevailing negative attitudes by members of urban-based institutions and specialist colleges, towards rural proceduralism believing that high throughput, specialist credentials and sophisticated medical technologies are essential to safe, quality procedural practice. Literature has alluded to the frustration of rural proceduralists with such attitudes[59] and Hutten-Czapski provides

[47] Bowes WA (1981). 'A review of perinatal mortality in Colorado, 1971 to 1978, and its relationship to the regionalisation of perinatal services'. *Am J Obstet Gyecol* 143:1045-1052.
[48] Howsktra R, Fangman J, Perkett E, Brasel D, Knox GE. (1981) 'Regionalisation of perinatal care'. *Minn Med* 64: 637-640.
[49] Cavanaugh AJM, Phillips KM, Sheridan B, Williams EMJ (1984). 'Contribution of isolated general practitioners maternity units'. *Br Med J* 288:1438-1440.
[50] Jackson WD, Diamond MR (1993). 'Procedural Medicine: Is your number up?'. *Aust Fam Physician* 22(9):1633-1639.
[51] Spike N, Veitch C (1991) 'General Practice procedural skills'. *Aust Fam Physician* 20(9):1312-1316.
[52] McD Taylor D (1997). 'Undergraduate procedural skills training in Victoria: is it adequate? *Med J Aust* 166:251-154.
[53] Wise AL, Hays RB, Adkins PB, Craig ML, Mahoney MD, Sheehan M, Siskind V, Nichols A (1994). 'Training for rural general practice'. *MJA* 161:314-318.
[54] Dixon-Warren N.'Competency scores of common procedural skills as self-reported by graduating family medicine residents in Ontario'. Unpublished Report. North Western Ontario Family Medicine North Program 1996-1997. Ontario, Canada.
[55] Innes KM, Strasser RP (1997). 'Why are general practitioners ceasing obstetrics?' *MJA* 166:276-277.
[56] Watts RW, Marley JE, Beilby JJ, MacKinnon RP, Doughty S (1997). 'Training, skills and approach to high-risk obstetrics in rural GP obstetrics'. *Aust NZ J Obstet Gynaecol* 37(4):424-426.
[57] Watts RW (1993). 'The GP Proceduralist'. *Aust Fam Physician* 22(8):1475-1478.
[58] Tolhurst H, McMillan J, McInerney P, Bernasconi J (1999). 'The Emergency Medicine training needs of rural general practitioners'. *Aust J Rural Health* 7:90-96.
[59] Shepherd J. 'Maximising the use of clinical skills in rural practice'. *Proceedings of the National Rural Health Conference*, Australia, 1992:201-209.

clinical anecdotes of a young Canadian rural proceduralist leaving practice when the hospital administration commissioned, urban specialist report cautioned against rural procedural practice, and another of hospital boards bringing in specialists from the city leading to the local proceduralists losing confidence in their skills and ceasing practice.[60] A more enlightened report commissioned by the RACS has specifically pointed to the need to ensure balance of specialist and procedural services in rural areas, enabling rural proceduralists to maintain their practice skills and income.[61]

The lack of confidence arising from too few practice opportunities also underscores the importance of effective and accessible CME[62] and Dunbabin's research has found that most rural proceduralists consider both their initial training and available CME to be inadequate expressing particular reservations about the adequacy of training for new medical graduates. [63]

2.5 Professional satisfaction

The opportunity to undertake procedural practice has been consistently found to be a primary attraction for medical graduates to rural practice and considered by rural doctors as one of the key attributes of rural practice. [64] [65] [66] [67]

Doctors are often attracted to rural medicine not only for the intellectual challenge of the broader scope of practice but also for the opportunity to feel that that are making a difference to the health and well being of their community. The importance of the doctor to the rural community is a source of satisfaction for the doctor but also creates added pressure to perform. Procedural practice greatly adds to professional satisfaction not just for its medical scope but also as it facilitates continuity of care and enhances the doctor's capacity to provide their patients with the care they need.[68] This continuity of care by their local doctor is also important to and appreciated by, the rural community. [69] [70]

The opportunity to practice procedural medicine appears to be central to the attraction of rural practice and evidence suggests a strong link between the cessation of procedural services and the decision to stay or leave rural practice altogether. [71] Dunbabin also reports that 20% of rural doctors that she surveyed reported that they would leave rural practice if procedural medicine was not available. [72]

---

[60] Hutten-Czapski P (1998). 'Life on Mars – practising obstetrics without an obstetrician'. *CJRM* 3(2):69.
[61] Bruening M, Maddern G (1998). 'A Profile of Rural Surgeons in Australia'. *MJA* 169:324-326.
[62] AMWAC (1996). *'The anaesthetic workforce in Australia'.* AMWAC Report 1996.3. Sydney.
[63] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[64] Kamien M (1998) 'Staying in or leaving rural practice: 1996 outcomes of rural doctors' 1986 intentions'. *MJA* 169:318-321.
[65] Hays RB, Veitch PC, Cheers B, Crossland L (1997). 'Why doctors leave rural practice'. *Aust. J Rural Health*. 5:198-203.
[66] AMWAC (1998) 'Influences on Participation in the Australian Medical Workforce'. Canberra: AMWAC.
[67] Strasser RP, Hays RB, Kamien M, Carson D (2000). 'Is Australian Rural Practice Changing? Findings from the national rural general practice study'. *Aust J Rural Health* 8:222-226.
[68] Watts RW (1993). 'The GP Proceduralist'. *Aust Fam Physician* 22(8):1475-1478.
[69] Ibid.
[70] Humphreys J, Mathews-Cowey S, Manderson L (1997). 'Factors in Accessibility of general practice in rural Australia'. *MJA* 166.
[71] Kamien M (1998) 'Staying in or leaving rural practice: 1996 outcomes of rural doctors' 1986 intentions'. *MJA* 169:318-321.
[72] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.

2.6 Medical Indemnity Concerns

There is a clearly apparent link between the recent sharp decline in procedural practice and the burgeoning spectre of legal liability issues and rising indemnity premiums. In all studies examined these issues overwhelmingly were found to be a major determinant and usually the major determinant in proceduralists decision to cease practice.

The rural and remote context with emergency situations common, and often occurring in isolated settings, minimal resources and back up and overworked doctors clearly has attendant risks for litigation. Medical indemnity premiums have been steadily increasing over time as society in general becomes increasingly litigious.

While many states have instigated some measures to provide financial assistance toward medical indemnity cover for rural proceduralists these appear to have been insufficient to alter doctors' perceptions of the financial barriers that exist. The Commonwealth Indemnity Study in 1994 found that the percentage of income devoted to medical indemnity subscription for proceduralists was as much as 167% higher than that devoted to medical indemnity subscription of non-procedural GPs.[73] It would be expected that these costs have increased substantially since the time of this finding.

In addition to financial considerations, the increasingly litigious environment and the need for more defensive approaches to medicine places considerable additional stress upon rural doctors. Particularly as Sondergeld and Nichols point out, with the added dimension in the rural context of the much more personal relationship between the rural doctor and his patient community and, as indicated above, the added importance to the rural doctor of the esteem of his community. Hence, while the risk of litigation may be small, the potential consequences to the rural doctors are very high at a financial, professional but perhaps more importantly at a personal level [74] as Bushy et al report it is not uncommon for rural doctors to describe legal action as a professional and personal 'crisis'.[75]

Sondergeld and Nichol's study found that of the non-proceduralist doctors surveyed, over two thirds indicated that they had undertaken procedural practice in the past. Of these doctors, 55% cited medical indemnity cover as a factor contributing to their decision to cease procedural work and 32% cited this as being the sole factor. Of those surveyed doctors that had changed their cover from procedural to non-procedural, 73.8% indicated that this change had coincided with a major premium hike, with 50.9% indicating that costs were the precipitant and 39.5% indicating that medical concerns were also operative. Of those who did not change their cover 34.1% indicated that they were considering a change.[76]

Dunbabin's study highlighted that for most proceduralists that had ceased practice, medical indemnity costs were the major contributing factor but for those proceduralists who were

[73] Commonwealth Department of Health, Housig . Local Government and Community Services (1994). '*Compenstation and Professional Indemnity in Health Care: An interim report'*. Canberra: AGPS.
[74] Sondergeld S, Nichols A (1998). 'Rural proceduralists: An endangered species.' Report of the Queensland Rural Indemnity Study, 1997. *Aust J Rural Health* 6:126-131.
[75] Bushy A, Rauh JR (1993) in Sondergeld S, Nichols A (1998). 'Rural proceduralists: An endangered species.' Report of the Queensland Rural Indemnity Study, 1997. *Aust J Rural Health* 6:126-131.
[76] Sondergeld S, Nichols A (1998). 'Rural proceduralists: An endangered species.' Report of the Queensland Rural Indemnity Study, 1997. *Aust J Rural Health* 6:126-131.

currently undecided, the availability of Government support to meet the gap in indemnity services was a major determining factor in their decision. [77]

In the United States, studies have consistently found malpractice insurance premiums and fear of litigation to be the most commonly cited basis for ceasing provision of procedural medicine and particularly procedural obstetrics. [78] [79] [80]

Madden et al found the cost of malpractice insurance and protection from legal liability (32.8%) and lack of coverage (19.7%) were issues cited by surveyed doctors as by far the most significant barriers to procedural practice. Nesbitt et al have found that while financial incentives have increased rural family physicians' willingness to provide obstetric services, for 58% of respondents, poor reimbursement and administrative issues were cited as notable barriers to service provision and fear of litigation continued to be cited as a significant barrier to service provision by both current service providers and those who had discontinued providing obstetric services.[81]

Interestingly, another study found that despite overwhelming concerns about legal liability issues, the decision to cease practice was influenced by the features of the rural community practice and not significantly influenced by the financial implications of legal liabilities, with doctors in areas in most in need of procedural skills (where work pressures and associated risks could be expected to be highest), most likely to continue to practice.[82] This appears to be supported by another survey finding that 33% of family physicians studied viewed procedural obstetrics provision as their responsibility to their community while only 15% felt it to be important financially. However this study still found medical indemnity issues to be the major cause of cessation of procedural services.[83]

2.7 Lifestyle and family considerations

While the literature would suggest that medical indemnity issues are the major contributer to decisions to cease procedural practice, the impact of procedural practice upon lifestyles and family time appears to be the second most important consideration. Procedural practice involves being on-call, much greater working hours, lack of predictability leading to unreliability with other workplace responsibilities, and as mentioned above a much greater level of professional and personal stress. These factors are all exacerbated where there is a loss of proceduralist and specialist colleagues and the reviewed studies have commonly recorded a pattern of the loss of one service in a town, followed in quick succession by losses of other proceduralists in that community.

---

[77] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[78] Madden ML, Moore RW (2001). 'Barriers to provision of obstetric services by family physicians in Louisiana'. *J La State Med Soc* 153(3):127-133.
[79] Nesbitt TS, Tanji JL, Scherger JE, 'Kahn NB (1991). 'Obstetric care, Medicaid, and family physicians. How policy changes affect physicians' attitudes.' *West J Med* 155(6):653-657.
[80] Nesbitt TS, Kahn NB, Tanji JL, Scherger JE (1992). 'Factors influencing family physicians to continue providing obstetric care'. *West J Med* 157(1):44-47.
[81] Nesbitt TS, Tanji JL, Scherger JE, 'Kahn NB (1991). 'Obstetric care, Medicaid, and family physicians. How policy changes affect physicians' attitudes.' *West J Med* 155(6):653-657.
[82] Pathman D, Tropman S (1995).'Obstetrical practice among new rural family physicians'. *J Fam Pract* 40(5):457-464.
[83] Newbitt TS, Kahn NB, Tanji JL, Scherger JE (1992). 'Factors influencing family physicians to continue providing obstetric care'. *West J Med* 157(1):44-47.

Innes and Strasser in their study of procedural obstetricians who had ceased or were considering ceasing procedural practice from 1989-1996 found lifestyle and family factors including exhaustion from day and night work, to be cited as the most important factors influencing this decision with rising insurance premiums being the second most important factor.[84] The key importance of these issues is also supported by the findings of Watts et al, FNQDGP and Dunbabin[85] [86] [87].

International studies show similar trends. In the United States, Madden et al found lifestyle protection (11.3%) and not having enough time (12.8%) to be two of the most commonly cited barriers to provision of procedural obstetrics. These however were viewed as much less significant than legal liability issues (see above).[88] In Canada, a comprehensive Government commissioned survey found that legal liability concerns have had a profound effect on primary care practice in Canada over the past 5 years, with 56.3% of survey doctors reporting a reduction in the scope of their practice including reduction or cessation of anaesthesia, obstetric care and emergency work, with concern about litigation reported as being the most important reason for this. In the latter two instances lifestyle and other issues were also influencing factors.[89]

2.8 Medical services and resources

The limited availability or lack of access to expertise and resources to enable the proceduralist to do their job can prevent or impede procedural practice.

2.8.1 Availability of Hospital Facilities

The support of local/regional health services for local procedural skills maintenance is of major importance to sustaining rural proceduralism. Studies have found that the downgrading of small hospitals facilities in favour of larger regional hospitals more likely to have specialists has prevented or inhibited procedural practice in many rural towns. In rural New South Wales for example 35 rural obstetric units were closed in the 1980's.[90] [91] [92] [93] Kamien has found that the inability to practice procedural medicine due to loss of necessary hospital facilities has commonly led to doctors leaving rural practice altogether.[94] With the decline in procedural services comes the attendant risk

[84] Innes KM, Strasser RP (1997). 'Why are general practitioners ceasing obstetrics?' *MJA* 166:276-277.
[85] Watts RW (1993). 'The GP Proceduralist'. *Aust Fam Physician* 22(8):1475-1478.
[86] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[87] Watts RW, Marley JE, Beilby JJ, MacKinnon RP, Doughty S (1997). 'Training, skills and approach to high-risk obstetrics in rural GP obstetrics'. *Aust NZ J Obstet Gynaecol* 37(4):424-426.
[88] Madden ML, Moore RW (2001). 'Barriers to provision of obstetric services by family physicians in Louisiana'. *J La State Med Soc* 153(3):127-133.
[89] Woodward CA, Rosser W (1989). 'Effect of medicolegal liability on patterns of general and family practice in Canada'. *CMAJ* 141(4):291-299.
[90] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[91] Alexander C (1998). 'Why Doctors would stay in rural practice in the New England health area of New South Wales'. *Aust J Rural Health* 6:136-139.
[92] Macklin J (1999). *'How will we judge the success of the National Framework?'* In Proceedings of 5th National Rural Health Conference, Leaping the Boundary Fence, Using evidence and collaboration to build healthier rural communities. 1999 March 14-17, Adelaide.
[93] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[94] Kamien M (1998) 'Staying in or leaving rural practice: 1996 outcomes of rural doctors' 1986 intentions'. *MJA* 169:318-321.

that this will be used to justify the closure of many rural procedural unit facilities making recruitment of new proceduralists unfeasible and creating a chicken and egg cycle of which rural communities would be the ultimate losers.

Personality conflicts with hospital administrations and lack of access to hospitals have also been recognized barriers to, and preventers of procedural practice. [95]

2.8.2 Availability of complementary medical services

Availability of complementary proceduralist services is an important contributing factor. Not only will this remove the possibility of workplace back-up, but also the loss of a procedural anaesthetist for example, may render many local surgical and obstetric procedures impracticable and vice versa. Suitably qualified nursing staff are also important in this respect.[96] [97] It should be recognized that the decline in procedural practitioners occurs within a wider environment of growing rural medical workforce shortages in both generalist and specialist doctors.[98] [99] The studies reviewed commonly cited the cessation of services of remaining proceduralists (particularly due to retirement) shortly after the departure or cessation of services by colleagues. This highlights the extra sensitivity of rural areas to minor changes in workforce and the domino effect that can occur with decreasing proceduralism.

2.9 Financial and Business Considerations

In addition to the financial issues associated with medical indemnities premiums, other financial and professional costs and burdens exist which are weighed up by rural doctors in their decision to continue procedural practice.

2.9.1 CME Inaccessibility, Expense and Inconvenience

The difficulties of accessing CME to facilitate skills maintenance has been widely cited by rural doctors as a major barrier to skills maintenance. These present a major financial burden, where they involve considerable time off work and the unavailability of locums can prove prohibitive. [100] [101]

2.9.2 Financial considerations

There is a range of financial disincentives (other than medical indemnity premiums) to maintaining procedural skills. There is little or no financial compensation for the on-call

[95] MacIsaac P, Snowdon T, Thompson R, Crossland L, Veitch PC (2000). 'General Practitioners Leaving Rural Practice in Western Victoria'. *Aust J Rural Health* 8:68-72.
[96] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[97] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[98] DHAC (2001). *"The Australian Medical Workforce'* Occasional Papers: New Series No. 12. Canberra: DHAC.
[99] Stocks N, Peterson C (1994). '*Rural Health and specialist medical services.* National Centre for Epidemiology and Population Health. Melbourne: ANU.
[100] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[101] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.

nature of procedural medicine, nor is there any adequate recognition of the higher standard of practice associated with it. Many proceduralists report to under-employment in their procedural area and the costs (both financial and personal) associated with maintaining procedural services (including the above mentioned difficulties associated with CME), are not adequately compensated by the remuneration they attract.[102] [103] Sondergeld and Nichols found that of surveyed rural doctors who had ceased procedural practice, 46% identified lack of caseload as the key reason for this decision and 18% indicated that it was the sole determinant.[104] Not surprisingly, increased incentives in the form of appropriate remuneration for procedural services and after-hours care have been proposed by doctors that had left rural practice as effective recruitment strategies.[105]

2.10 Decision Triggers

The work of Hays et al has pointed to retention in rural practice being linked to a tension between the inter-related but opposing influences of its attendant professional satisfactions such as opportunities for procedural medicine and a wider scope of practice and responsibilities against the negative impacts that these have on the family and private life. They postulate that a number of trigger factors including acute professional personality conflicts and children entering secondary schooling (where parents wish to send them to metropolitan schools) can shift the balance in favour of leaving rural practice.[106]

This approach can be extended to the question of retention of procedural skills. While there is considerable evidence to suggest that despite its minimal if not negative financial rewards, proceduralism continues to be a highly attractive option for many doctors pursuing careers in rural medicine, which delivers considerable professional satisfaction,[107] [108] [109] this consideration appears to be weighed against its associated difficulties.

These include, stress, fear of litigation, extended and unpredictable work hours, inconvenient CME obligations and potentially growing lack of confidence stemming from inadequate CME, insufficient opportunities to perform procedures or potentially from the perceived skepticism of the specialist profession and medical administrations.

From the evidence of studies reviewed, the two key decision trigger factors seem to be an anticipated rise in indemnity premiums; and, secondly the loss of fellow proceduralists raising the spectre of increasing workloads and the likelihood of loss of facilities.

---

[102] Dunbabin J, Sutherland D (2002). 'Procedural Medicine in rural and remote NSW – Workforce Issues'. Unpublished Paper.
[103] RDAA (2002). 'The Impact of the Trade Practices Act on Procedural General Practitioners in Rural and Remote Areas'. A supplement to the Submission to the Review of the Impact of the TPA on the Recruitment and Retention of the Rural Medical Workforce. April 2002. Canberra.
[104] Sondergeld S, Nichols A (1998). 'Rural proceduralists: An endangered species.' Report of the Queensland Rural Indemnity Study, 1997. *Aust J Rural Health* 6:126-131.
[105] MacIsaac P, Snowdon T, Thompson R, Crossland L, Veitch PC (2000). 'General Practitioners Leaving Rural Practice in Western Victoria'. *Aust J Rural Health* 8:68-72.
[106] Hays RB, Veitch PC, Cheers B, Crossland L (1997). 'Why doctors leave rural practice'. *Aust J Rural Health*. 5:198-203.
[107] Ibid.
[108] Strasser RP, Hays RB, Kamien M, Carson D (2000). 'Is Australian Rural Practice Changing? Findings from the national rural general practice study'. *Aust J Rural Health* 8:222-226.
[109] AMWAC (1998) 'Influences on Participation in the Australian Medical Workforce'. Canberra: AMWAC.

2.11 Some Conclusions

The apparent decline of the rural procedural workforce occurs in parallel with a loss of rural medical specialists and represents an overall loss of specialist services to rural areas. This should be a major concern to policy makers and the medical community in general and every effort should be made to arrest further declines.

There is ample evidence to suggest that this loss of locally based services translates not only to a serious decrease in the quality and safety of services available to rural communities but also the perceived quality of life of those communities. The decline is also concerning because of its apparent irreversibility, with loss of proceduralist leading to loss of rurally based facilities and adding to the unattractiveness of rural practice (without the opportunity for proceduralism) for the next generation of doctors.

A review of the many major disincentives attendant to rural procedural practice, begs the question not of why are rural practitioners ceasing proceduralism, but rather why have they continued for so long. This study gives credence to the axiom that rural doctors are in the main motivated by the imperative of meeting the perceived needs of their communities and less influenced by financial considerations. This is demonstrated by the apparent reluctance of doctors to cease procedural services despite overwhelming concerns about legal liabilities and substantial lifestyle burdens particularly in smaller towns where many of the negative factors associated with proceduralism are at their worst. Solutions to this problem should recognize the altruistic nature of many rural doctors and structure incentives accordingly, but by the same token, in the interests of both doctors and their communities, it is important that these considerations should not prevent appropriate improvements to their professional circumstances.

Appropriate solutions need primarily to address the two trigger factors outlined above, namely medical indemnity costs and loss of colleagues to address the immediate problems, but ultimately need to address underlying causes of dissatisfaction. Some approaches to solving these problems are discussed below.

2.11.1 Medical Indemnity Costs

The most urgent actions required, which provide perhaps the only mechanism to address the problem in the immediate term, are the provision of better support for rural medical indemnity programs and/or undertaking of legislative action to arrest the surging costs associated with these.

In the longer term, the undue stress and uncertainties associated with fear of litigation could be addressed through, better and more accessible training; better and clearer models of credentialing and care, with clearer guidelines defining appropriate practice; and better cooperation and mutual respect between rural doctors, medical administrators and specialist colleges.

Rural doctors, specialist colleges and other key allied health groups and hospital administrators, need to work collaboratively to delineate cooperative models of medical care which will not only improve service provision but which can also demonstrably provide the clearest, most responsible and safest models of care. They also need to ensure that credentialing of rural proceduralists clarifies and appreciates their practice roles and responsibilities.

An exemplary initiative in Canada to this end, has been the development of a clear set of guidelines for safe and quality provision of rural obstetrics in rural areas which have been developed in a joint initiative between rural doctors and obstetricians, which aims to provide a consistent national evidence-based framework for risk-management policies of hospitals, licensing bodies and doctors and can also inform rural mothers. The guidelines offer a clear but not unnecessarily restrictive delineation of what constitutes safe practice excluding for example the need for caesarian section facilities for low risk pregnancies, on the basis of clear evidence that this can offer the safest and best quality care.[110] A similar model has also been adopted in Western Australia.[111]

CME and professional support initiatives, which provide relevant education, guidance and support in these areas will also assist as will better access to, and quality of CME programs in general.

2.11.2 Loss of professional colleagues

The issue of retaining rural proceduralists is inalienable from the wider issue of attracting and retaining more doctors, specialists and auxiliary staff to rural areas and maintaining adequate medical services. It needs to be recognized that none of these issues can be addressed without due consideration for the others.

Particular attention needs to be paid to making rural practice and procedural practice attractive to female doctors. In particular, workforce models that can maximize the flexibility of practice to accommodate family considerations become more important than ever. These of course ultimately will require the availability of more rural doctors.

The apparent tendency of female proceduralists toward obstetrics is a positive but concerning development, the former because this is an area of particular need and the latter because it is the area of proceduralism apparently most threatened by medical indemnity issues and underscores the importance of addressing these.

It is noteworthy that towns supporting 3-4 proceduralists appeared to be significantly more common and this perhaps is a useful benchmark to aim for in procedural workforce recruitment and retention. More appropriate training and preparation for rural procedural practice; better recognition of the value and attractions of rural medicine; and, improvements to the quality and accessibility of CME will all contribute to improving recruitment and retention. More supportive attitudes toward rural procedural practice generally from the medical training and medical administration sector are also of critical importance.

[110] Council of the Society of Rural Physicians of Canada (1998). 'Rural Obstetrics: Joint position paper on rural maternity care'. *CJRM*. 3(2):75. Paper prepared by the Joint Working Group of the Society of Rural Physicians of Canada, the College of Family Physicians of Canada Committee on Maternity Care, and the Society of Obstetricians and Gynecologists of Canada.
[111] Health West (2000). '*Rural Obstetrics and Midwifery Guidelines*'.

3. METHODOLOGY

3.1 Summary and timeline

The strategies proposed for the project methodology, develop an evidence-based approach that is achievable with a small cohort and within a relatively short timeline.

- Development of a literature review based on a typology of influencing categories and referencing of the major issues under key headings.
- Development of a national sampling framework of up to 50 procedural doctors and negotiation of access.
- Institution of an adapted Delphi process to validate and add to the findings of the review and to agree a set of categories and barriers to the retention of procedural skills. Using reference to individual doctors in the above sampling framework and to focus groups with representative rural and remote doctors, professional organisations and stakeholders. Thus providing a consultation mechanism to develop and validate criteria arising from the literature review.
- Administration of the survey identifying and defining key categories and issues for prioritization.
- Based on the results of this formulation, a triangulation process using in-depth interviews with representatives of the sampling framework and controls on the key priority issues raised by the Delphi process.
- Supporting interviews with training providers and workforce support organisations, including RDAs and Divisions of GP.
- Analysis and reporting of findings as a basis for:
    - Review, amendment and validation of findings;
    - Remedial strategies;
    - Recommendations for action- with priorities and timelines.
- Final reports and publications

3.2 Sampling framework

A sampling framework was used to obtain a sub-group of ACRRM members for the above research. The initial process of the sampling framework was to divide the members into categories, the first being location, that is, State or Territory. The members were only chosen if they were classified as RRMA (Rural Remote Metropolitan Area) code 4-7 as the basis of the research is to assess barriers to the retention of procedural skills for doctors in rural and remote areas and therefore the views of members currently practising in codes 1-3 were not accessed on this occasion. However, re-location issues may be linked with a loss of procedural practice and note has been taken of the need to access this cohort in the immediate future.

The required number of members for the sample was 50. The proportion of ACRRM members from each state determined the proportions of the sample, resulting in the following: Queensland 18.9%, New South Wales 31.9%, Tasmania 0.6%, Australia Capital Territory 0% (based on RRMA code restrictions), Northern Territory 1.4%, Western Australia 12.9%, South Australia 16% and Victoria 18.3%. Based on these proportions and use of 'rounding up' of decimal numbers of members, 53 members were chosen for the sample.

The next category was gender and in line with ACRRM policy 30-35 % of the sample was female. This manipulation of the sampling framework was also required in order to ensure an appropriate number of females were part of the sample as simple interval selection of proceduralists would not have necessarily provided this result. In this sampling framework the percentage of females was 30%.

Once members were divided into gender categories, interval selection was used to obtain individual doctors. When this sample was obtained, the next category to be assessed was procedures performed by the members. This category was divided into two; major procedures and minor procedures. The sample included 70% of members who fell into the major procedures of surgery, anesthetics and obstetrics and 30% in the "other procedures" category. Again, of these proportions, 30% of members who carried out either major or minor procedures were females.

Once members were chosen as part of the sample, a review of the RRMA codes for members showed the following distribution; RRMA code 4 - 27.8%, RRMA code 5 – 57.4%, RRMA code 6 – 7.4% and RRMA code 7 – 7.4%.

3.3 Guiding typology

Based on a preliminary consultation with rural medical organisations and rural proceduralists, a typology of issues was developed to guide both the issues developed in the literature review and the component parts of the survey. (Attachment One) These data are intended to:

- Provide an indicative basis for an action agenda by ACRRM, RDAA and other support organisations; and
- Identify trends to Government that might form the basis for further investigation.

3.4 Identification of issues

The major issues impacting on both the acquisition and retention of procedural skills have been identified in three ways:

- The input of an expert group drawn from ACRRM and the RDAA membership;
- Refinement of a basic typology by reference to the literature; and
- Finalisation of a set of issues by reference to representatives in key organisations including learned colleges and JCC members.

The provision of procedural services by generalist doctors has been a cornerstone of Australia's rural and remote medical services delivery system. Evidence clearly indicates that the procedural skills base available in rural and remote Australia is declining at an alarming rate. This is linked not only to a decline in rural proceduralists but also to a declining number of specialists in rural areas.

The value and importance of maintaining the procedural skills base in Australia has been widely acknowledged by Government[112] [113] [114], Specialist Colleges[115] and independent researchers[116].

[112] Wells (2001) 'Underserviced Communities: Australia' in AMWAC and DHAC (2000), *5th International Medical Workforce Conference 2000 Proceedings*. Sydney.
[113] AMWAC (1996) '*The Medical Workforce in Rural and Remote Australia*'. AMWAC Report. 1996.8. Sydney.

There is clear evidence to suggest that locally based procedural services are at least as safe as city-based services for low risk procedures, that they often result in better health outcomes and are at times (particularly in the case of medical emergencies), essential.

Provision of locally-based medical services is also consistent with rural communities preferred model of service[117] and erosion of these services would be viewed by most rural people as a major detriment to their quality of life. Further to this there is a clear link between procedural skills maintenance and the recruitment and retention of rural doctors.

3.5 Potential influences on the acquisition and retention of procedural skills

3.5.1 Policy

- Government incentives for procedural training;
- Government categorisation of rural and remote practice;
- Current Commonwealth policy on training;
- State government policies on health care delivery;
- Difficulties in relocating – obstacles to registration;
- Regulatory/ recognition issues between Colleges;
- Recognition of the different requirements of rural and remote practice;
- Regional health policies currently in place; and
- General undervaluing of the procedural GP.

3.5.2 Communities/Practice

- Ability to respond to community needs;
- Levels of community support and awareness of implications of losing services;
- Harnessing of community opinion in lobbying;
- Issues relating to changing population needs;
- Case numbers available locally to ensure currency;
- Local demand for services;
- Ability to take leave for training opportunities –time constraints, professional limitations; and
- Levels of colleague or locum support when required.

3.5.3 Education and upskilling

- Access to appropriate skills programs – type, locality, cost;
- Pressures of maintaining a broad range of skills;
- Greater GP input to procedural training positions in hospitals;
- Recognition of training – credentialing arrangements;
- Lack of appropriate training for female GPs;
- Need to achieve multiple standards and benchmarks across medical disciplines;

---

[114] Best J (2000) '*Rural Health Stocktake'.* Advisory Paper to the Commonwealth Department of Health and Aged Care. Canberra.
[115] Bruening M, Maddern G (1998). 'A Profile of Rural Surgeons in Australia'. *MJA* 169:324-326.
[116] Stocks N, Peterson C (1994). '*Rural Health and specialist medical services.* National Centre for Epidemiology and Population Health. Melbourne: ANU.
[117] Humphreys J, Mathews-Cowey S, Manderson L (1997). 'Factors in Accessibility of general practice in rural Australia'. *MJA* 166.

- Promotion of the value of maintaining procedural skills;
- Relative difficulty of achieving procedural status;
- Inappropriate forms of teaching and mentoring for individual doctors requirements;
- Too few programs to target the next generation of proceduralists; and
- Lack of appropriate recognition/ reward for teachers and mentors.

3.5.4 Essential resources

- Levels of local hospital, theatre, emergency back-up resources;
- Transport issues;
- Access to specialists – resident/visiting for appropriate training and backup;
- Partnering – levels of access to colleagues with complimentary skills;
- Access to essential health personnel;
- Access to investigations on an appropriate timeframe;
- Ad hoc or patchy resource coverage by health services; and
- Current trends towards centralisation of services.

3.5.5 Relationships

- Regional health organisations/ Divisions providing options for skills maintenance;
- Relationships with/ absence of key mentors – colleagues and specialists;
- Relationships between GP organisations and Specialist Colleges;
- Perceived competition, professional domain and territorial issues; and
- The level of rural focus of professional organisations.

3.5.6 Legal issues

- Changing patterns of litigation; and
- Maintenance of multiple standards, benchmarks and qualifications.

3.5.7 Cost

- Costs of upskilling versus income recovery;
- Indemnity and other insurance costs;
- Issues arising from current health economic statements of the costs of treatment in communities vs referral to a regional centre; and
- Costs of professional memberships.

3.5.8 Personal and lifestyle

- Changing preferences for combining medical and social/family life;
- Part time practice;
- Stress and pressures of procedural practice;
- Living and working in the same community; and
- Changing demographics of the rural medical workforce.

3.5.9 The future

- Ensuring GPET priorities in rural procedural training;
- Ensuring regional training consortia adequately address procedural skills and support for advanced training posts;

- Providing new models of training to respond to the feminisation of the workforce; and
- Providing new models of training/ skills maintenance for part time doctors.

3.6 Survey administration and analysis

This was undertaken in May 2002 and generated a 90% response. Analysis of aggregate results, responses from female practitioners and responses from the states generating the largest number of returns was undertaken and is presented in this report. The relatively small number of doctors in the design makes this more of an indicative study. However the methodology has been rigorous and the project is timely in view of the national debate in progress around indemnity and procedural practice. Details of the survey instrument are provided in Attachment Two.

4. RESULTS

4.1 Aggregate results

An 85% response rate was achieved to the study, in which doctors indicated the following issues as the most important determinants of whether or not they could continue to maintain procedural skills. Using a simple points scoring system, the particular priorities for action emerged as follows:

4.1.1 Issues all respondents rated as being a significant barrier to retaining procedural skills:

- Indemnity and other insurance costs;
- Changing patterns of litigation;
- Maintenance of multiple standards, benchmarks and qualifications;
- Costs of upskilling versus income recovery;
- General undervaluing of the procedural GP;
- Pressures of maintaining a broad range of skills;
- Ability to take leave for training opportunities –time constraints, professional limitations;
- Access to appropriate skills programs – type, locality, cost;
- Current trends towards centralisation of services;
- Changing preferences for combining medical and social/family life; and
- Need to achieve multiple standards and benchmarks across medical disciplines.

4.1.2 Issues rated by all respondents as being'of moderate importance:

- Government incentives for procedural training;
- Access to essential health personnel;
- Harnessing of community opinion in lobbying;
- Partnering – levels of access to colleagues with complimentary skills;
- Providing new models of training/ skills maintenance for part time doctors;
- Providing new models of training to respond to the feminisation of the workforce;
- Current Commonwealth policy on training;
- Greater GP input to procedural training positions in hospitals;
- Government categorisation of rural and remote practice; and
- Changing demographics of the rural medical workforce.

4.1.3 Iissues rated by all respondents as being 'of lesser importance':

- Living and working in the same community;
- Access to investigations on an appropriate timeframe;
- Government categorisation of rural and remote practice;
- Difficulties in relocating – obstacles to registration; and
- Perceived competition, professional domain and territorial issues.

4.2 High priority issues for action by all respondents

- Changing patterns of litigation; and
- Indemnity and other insurance costs.

4.3 Issues of particular importance to female respondents

4.3.1 Significant barriers to retaining procedural skills:

- General undervaluing of the procedural GP;
- Costs of upskilling versus income recovery;
- Indemnity and other insurance costs;
- Stress and pressures of procedural practice;
- Ability to take leave for training opportunities –time constraints, professional limitations;
- Levels of colleague or locum support when required;
- Access to appropriate skills programs – type, locality, cost;
- Pressures of maintaining a broad range of skills;
- Current trends towards centralisation of services;
- Maintenance of multiple standards, benchmarks and qualifications; and
- Costs of professional memberships.

4.3.2 Issues of moderate importance to female practitioners:

- Support from regional health organisations/ Divisions in providing options for skills maintenance;
- Ability to respond to community needs;
- Recognition of training – credentialing arrangements;
- Providing new models of training to respond to the feminisation of the workforce;
- Government incentives for procedural training;
- Government categorisation of rural and remote practice;
- Local demand for services;
- Lack of appropriate training for females;
- Access to essential health personnel; and
- Providing new models of training/ skills maintenance for part time doctors.

4.3.3 issues of lesser importance to female respondents:

- Issues relating to changing population needs;
- Difficulties in relocating – obstacles to registration;
- Access to investigations on an appropriate timeframe;
- Relationship between GP organisations and Specialist Colleges; and
- Living and working in the same community.

4.4 Issues flagged by female respondents as high priorities for action

- Changing patterns of litigation;
- General undervaluing of the procedural GP;
- Ensuring GPET priorities in rural procedural training; and
- Indemnity and other insurance costs.

4.5 Top issues in the eastern states

This is principally an indicative study. The small numbers of respondents make broad generalization difficult, however we did investigate the commonalities and differences that might point to important state-based issues, as the basis for much more detailed follow-up in subsequent work. Table One indicates the top items from the states having the largest groups of respondents.

It can be seen that changing patterns of litigation is a common issue, as are key changes to the way services are rolled out, particularly moves to centralize services. The complexities of meeting multiple benchmarks, standards and modes of credentialing are foremost plus the general culture of undervaluing the role of the proceduralist in rural medicine.

Table One: Responses by state

Victoria	NSW	Queensland
1 Maintenance of multiple standards, benchmarks and qualifications;	1 Indemnity and other insurance costs;	1 Case numbers available locally to ensure currency;
2 Changing preferences for combining medical and social/ family life;	2 Costs of upskilling versus income recovery;	2 Relationships between GP organisations and Specialist Colleges;
3 Recognition of the different requirements of rural practice;	3 General undervaluing of the procedural GP;	3 Changing patterns of litigation;
4 General undervaluing of the procedural GP;	4 Pressures of maintaining a broad range of skills;	4 Maintenance of multiple standards, benchmarks and qualifications;
5 Ability to take leave for training opportunities – time constraints, professional limitations;	5 Changing patterns of litigation;	5 General undervaluing of the procedural GP;
6 Access to appropriate skills programs – type, locality, cost;	6 Ability to take leave for training opportunities – time constraints, professional limitations;	6 Indemnity and other insurance costs;
7 Recognition of the different requirements of rural practice;	7. Levels of colleague or locum support when required;	7 Ability to take leave for training opportunities – time constraints, Professional limitations;
8 Changing patterns of litigation;	8. Access to appropriate skills programs – type, locality, cost;	8 Access to appropriate skills programs – type, locality, cost;
9 Stress and pressures of procedural practice;	9. Need to achieve multiple standards and benchmarks across	9 Pressures of maintaining a broad range of skills;

	medical disciplines;	
10 Costs of upskilling versus income recovery	10 Current trends towards centralisation	10 Current trends towards centralisation of services

4.6 Resume of qualitative data

Doctors were provided with the opportunity to comment and to enlarge on particular issues, both via the survey and through email responses during the timeline of the project. The following précis of their issues indicates a general concern with the status quo and some reservations about the future of procedural medicine for rural doctors.

4.6.1 Context of practice

A number of responses indicated that the organisation of Commonwealth and state government policies and programs generally militate against the existence of the proceduralist general practitioner, which makes the background context for sustaining the rural medical proceduralist innately difficult. Individual hospital and area health service policies are thought to provide a negative ethos and a lack of support in some cases which makes regional procedural team-building difficult.

Generally, the Centralisation policies of some health services are seen as problematic for rural proceduralists as is the growing deficiencies in access to rural and provincial specialist support, particularly support from the specialist colleges. Some respondents indicate that Governments, universities and teaching hospitals have never regarded procedural training for rural GPs as a mainstream initiative and that training for such activity needs to be given a much high priority. Many current rural proceduralists have trained overseas and the necessary training culture has not been firmly established in Australia for the rural proceduralist.

4.6.2 A dwindling resource

Doctors are generally concerned that proceduralists are ageing and that there are few programs in place to replace them in the numbers required or to provide a value base to the procedural craft which might encourage young doctors to take up procedural medicine and that is accepted by colleagues, training organisations and government. The status formerly connected with procedural medicine is being less strenuously articulated than the negative aspects of the practice. The lowering of numbers of proceduralists is also making it less likely that a young procedural aspirant will find a mentor in their own or a number of compatible proceduralists in the region to enable a supportive team to be developed.

4.6.3 Administrative complications

Staying as a proceduralist, being accredited and feeling confident in the standard of service and the safety that comes from frequent practice and good training are issues which recur in the comments. Many doctors feel that the growing number of benchmarks and standards required for procedural practice is unnecessarily complicating their existence. Doctors do not always understand why the JCCs need multiple layers of accreditation and certification and whether legislators and administrators understand the implications of their making multiple and frequent changes to requirements.

A common issue refers to the administrative overload/ paperwork for the solo GP. Income issues are reflected by comments on the financial disadvantage faced when the majority of patients are pensioners who cannot afford to be other than bulk billed. This factor is frequently linked with the ageing of rural Australia.

4.6.4 Lack of value/support structure

A general lack of value and recognition for the procedural doctor is linked by respondents to the paucity of records which illustrate how cost-effective country GPs (not attached to a hospital) are in keeping patients out of hospital, reducing ambulance transfer costs and such, especially if they take their own X-rays. Doctors identify a lack of appropriate back-up for leave, sickness and training or the provision of other health support or specialist assistance in particular cases.

There is also note of community and economic pressure when practice income and billing strategies must be set against the cost of a doctor's time-out to train plus locum costs, indemnity insurance fees and extra memberships. Doctors note their constant debate on the sustainability of their practice when set against cost, levels of stress and lack of appropriate support.

4.6.5 Legal implications

Understandably, with the research running in May and June 2002, law reform, patterns of litigation and indemnity arrangements were frequently mentioned. There is a clear need for Tort Law reform while Australia has the current ethos of litigation and defensive medicine. Doctors note that until Australia moves away from the negligence based system to a "no fault" system, such as in New Zealand, the problems will only worsen. High priorities for action by all groups in the survey are:

1. Indemnity – the need for an affordable and guaranteed insurance package. Several respondents forecasting a 30-50% decrease in the rural workforce within 5 years.
2. Workforce – many towns have reached a minimal 'critical mass' in numbers of doctors. Any further decrease in numbers is flagged to impact on service provision and there are not adequate replacements in training at present.
3. Rural training – very few procedural doctors are being trained at present, which is not enough to meet workforce needs.

4.6.6 Generational issues

Respondents are also concerned about the change in direction and priorities for young doctors. While recognizing that lifestyle and income preferences change, the inference for the rural proceduralist is clear. The comments raise questions about the means to ensure the next generation of proceduralists when different medical demographics, practice preferences and family choices are evident in the coming generations of practitioners.

5. CONCLUSION

There is broad consensus across genders and locations on those issues that create significant barriers to the maintenance of procedural skills or which, when addressed appropriately, might lead to practical solutions. There is also consensus on those areas that doctors see as priorities for most immediate attention. This is perhaps not unexpected, given the prominence of the indemnity issue in medical debate during the period of this research.

5.1 Work-in-progress

ACRRM is making these results widely available to the Rural Doctors Association of Australia and other interested organisations to assist their work on professional and industrial issues relating to procedures. A report containing a full analysis is being prepared for national distribution and publications are being considered. This material has been made available for the briefings to AHMAC in June 2002. The data form the basis for activity of the ACRRM Working Party on Procedural Medicine convened in June 2002 that will:

- progress an understanding of the barriers to attainment/ maintenance of procedural skills;
- develop an appropriate joint/ parallel agenda with the RDAA and appropriate agencies;
- develop solutions-based approaches and recommendations to government; and
- report jointly with RDAA to the Rural Subcommittee of AHMAC in October 2002.

5.2 The ACRRM Working Group

The ACRRM Working Group on Procedural Medicine is currently working to the following terms of reference:

- To examine and review the ACRRM paper on issues relating to the attainment and maintenance of skills in procedural medicine in rural and remote practice in Australia and to prioritise an agenda for ACRRM;
- To develop an agenda for change based on an appreciation of the priorities of rural and remote doctors and to develop a process through which priority issues can be progressed;
- To identify areas of activity appropriate for ACRRM, other organisations (including RDAA) and issues for both State and Commonwealth Government attention;
- To develop an accurate profile of current education, training and support issues and opportunities in procedural medicine in rural and remote practice;
- To consider ways in which a vertically integrated approach can be planned. This would include issues relating to the requirements of medical students, junior doctors, and registrars in the new training arrangements and established rural and remote doctors;
- To particularly examine the implications for the new training arrangements in the preservation and enhancement of both numbers and quality of procedural training opportunities; and
- To liaise closely with RDAA in the development of a co-ordinated approach to education and workforce solutions in procedural medicine.

FACTORS INFLUENCING THE RELOCATION OF RURAL PROCEDURALISTS

1. INTRODUCTION

In addition to understanding the barriers to maintaining procedural skills in rural medicine, it is useful to examine the principal issues influencing those doctors who leave procedural practice and relocate to provincial and urban situations.

ACRRM data indicates that remaining in procedural practice is more difficult and complex today than in former times, for a number of industrial, professional, social and environmental reasons. The correlation in rural medicine between need, service, professional capacity, training and support forms a crucial equation in determining the doctor's preparedness to remain in rural practice.

As part of its member services, ACRRM continues to serve a number of former rural doctors who now practice in metropolitan and provincial settings. The national cohort of ACRRM members in RRMA 1-3 was invited to contribute to a study that investigated:

- underlying reasons for decisions to change location and form of practice;
- the role in these decisions of barriers to the maintenance of procedural practice; and
- the role in these decisions of other issues – lifestyle, family, personal well-being which are currently well documented.

This work also develops a knowledge base for ACRRM in terms of:

- a forecast of their practice intentions in the future;
- the ongoing support requirements of these doctors; and
- the potential for engagement of these doctors in support and mentorship roles for future rural or procedural doctors;

In addition we revisited some issues that doctors identified as barriers to the retention of skills in the first ACRRM study, to gauge their influence on decisions to cease procedural practice in rural areas and to re-locate.

2. ISSUES IN THE LITERATURE

2.1 Understanding the factors influencing change

The major issues that create barriers to practice or trigger the decision to re-locate are generally well understood and documented, if not yet adequately addressed. While there is a natural progression of doctors both towards and away from rural practice, or from more isolated practice to areas with more comprehensive services, it is always useful to understand current factors in decision-making, through snapshot or cross-sectional research of the type undertaken here.

It is evident that programs of medical recruitment to rural areas have had limited effect in the past decade. [118] It is particularly important, therefore, that strategies are implemented to support and retain existing, highly trained procedural rural doctors whose services are crucial to many rural communities and whose working environment is currently under some pressure. It is also important to understand the triggers that precipitate the decision to change roles and to plan early interventions in support of proceduralists and other rural doctors. [119]The literature indicates that doctors, once having given up procedural medicine and de-skilled in key areas, do not tend to resume procedural practice. [120]

2.2 Addressing key issues

As a discrete subset of doctors, rural proceduralists appear to be a finely balanced professional group in terms of their continued viability. Current indemnity and litigation issues not only highlight a national concern but impact particularly on the expanded role of the rural doctor. In small communities, involvement in the legal system assumes different dimensions. Close personal relationships result in some unusual circumstances for doctors involved in litigation, their family, their peers, associates and the community as a whole. [121] [122]

Regional agencies have a key role in monitoring and advocacy roles in indemnity issues and the cost of cover, investigation of a better public-private interface and access to hospital facilities by procedural GPs and also, continued review of the costs of up-skilling and training versus income return.[123]

Considerable work has been undertaken in the past five years to evaluate the degree of professional satisfaction in the rural workforce and to understand the issues militating against it. [124] [125] While individual rates of satisfaction may be high, there is a notable increase in the degree to which rural doctors are required to compromise their own well-being and perceived quality of life for themselves and their families in order to adjust to both political and professional circumstances. [126] The literature is clear on a number of issues that challenge or marginalise rural practice, including:

- increased workload in the administration of practice, paperwork, compliance issues and increasingly regulated practice;
- the degree and frequency of change (and how to manage it);
- important relationships linked with professional satisfaction, including the practice/hospital interface and increased opportunities to work with colleagues; and

---

[118] Owen,C. On tour through Queensland, *AMAQ News, Journal of the Queensland Branch of the Australian Medical Association***,** April 1997.
[119] Woolard LA, Hays R. Rural obstetrics in Australia. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 1993; 33(3): 240-242.
[120] Nesbitt, TS et al. Will family physicians really return to obstetrics if malpractice insurance premiums decline? **JABFP** 1992; 5(4): 413.
[121] Bushy A and Rauh JR. Being sued in rural practice: a perspective from the USA. *Australian Journal of Rural Health* 1994; 2(1): 13-20.
[122] Gillett, J. Obstetrics in general practice. *Australian Family Physician* 1997; 26(3): 263-268.
[123] Sondergeld S. and Nichols A. Rural proceduralists: an endangered species. *Australian Journal of Rural Health* 1998; 6(4): 127-135.
[124] Hays RB. Veitch PC. Cheers B. Crossland L. Why doctors leave rural practice? *Australian Journal of Rural Health* 1997: 5 198 –203.
[125] Innes KM. And Strasser RP Why are general practitioners Ceasing obstetrics? **MJA** 1997; 166(5): 266-277.
[126] Hoyal D. Retention of rural doctors. *Australian Journal of Rural Health* 1995; 3: 2-9.

- strategies to minimise professional and commercial rivalries that may inhibit collaboration. [127]

Action is also recommended in continued support for medical families through:

- access to appropriate training for spouses in practice- related areas;
- advocacy of a greater range of careers for spouses / or negotiation of family employment packages and community models which include the family;
- access to advice for, and support of, families making educational decisions for their children; and
- monitoring of housing and practice conditions. [128] [129]

This study examines the current rationale for change provided by a number of ACRRM members now living in metropolitan and provincial areas.

3. METHODOLOGY

Eighty-seven doctors currently practising in RRMA 1-3 in each state and Territory were surveyed to determine the current status of their practice, their former practice pattern and the timing and reasons for their move to a more metropolitan or provincial situation.

3.1 Survey administration

Recipients of the survey were 73 male doctors (84%) and 14 female doctors (16%). Recipients were in RRMA 1 (62.1%), RRMA 2 (12.6%) and RRMA 3 (25.3%).

Table Two: National distribution of respondents

State	Survey sent
Queensland	26.4% (23)
New South Wales	25.3% (22)
Victoria	8.0% (7)
Tasmania	2.2% (2)
ACT	2.2% (2)
Northern Territory	1.1% (1)
South Australia	19.5% (17)
Western Australia	15.9% (15)
Total	100% (87)

3.2 Response pattern

The survey (Attachment Three) generated a 65% response, of 56 doctors. The proportions of returned surveys by gender exactly correspond to the original mail out.

[127] Strasser R. Hays RB. Togno J. Worley P. Carson D. Nichols A**.** *Sustainability of rural general practice services,* Report to the Commonwealth Government, GP Branch, Canberra 1997.
[128] Wise A. Nichols A. Chater A. *The Spouses of Rural Doctors: Married to the Practice*, University of Queensland, Brisbane 1993.
[129] Nichols A. Wise A. Spouses of rural doctors: a significant influence on rural practice. *Proceedings 4th National Rural Health Conference*, Perth, February 1997.

Table Three: Gender proportions

	Males	Females
Respondents	84% (47)	16% (9)

Table Four: Survey respondents by RRMA

RRMA	Responded to survey
1	58.9% (33)
2	17.9% (10)
3	23.2% (13)
Total	100% (56)

Table Five: Distribution of respondents by state

State	Respondents
Queensland	28.6% (16)
New South Wales	30.4% (17)
Victoria	10.7% (6)
Tasmania	3.6% (2)
ACT	1.8% (1)
Northern Territory	0.0%
South Australia	12.5% (7)
Western Australia	12.5% (7)
Total	100% (56)

In terms of practice type, the aggregate response indicates that 83.6% of respondents were in general practice, 3.6% in generalist practice, 5.5% in specialist practice, 7.3% other or unknown.

There is a similar proportion of male and female doctors in general practice at 82.6% and 88.9% respectively, however, 4.3% of males compared to 0% of females are in generalist practice and 6.5% of males compared to 0% of females are in specialist practice.

3.3 Survey components

The range of issues included:

- practice demographics and current practice status;
- former rural locations and times of leaving;
- reasons for change;
- current interests and affiliations; and
- current interest or activity in teaching and/or mentoring.

The survey addressed three major elements –

- a means to find the key (and continuing) reasons for change of location and to check whether these had changed significantly from studies in the early 1990s

- a way to assess the capacity of ex rural proceduralists to play a role in the teaching/ mentoring of urban based students and junior doctors and to gauge the degree to which they might be interested in a role to promote the valuing of rural procedures at various levels of training.

- to ascertain whether female doctors indicated a significantly different range of issues and to explore ways in which female medical students and junior doctors could be supported.

4. RESULTS

4.1 Rationale

The results of the survey are intended as a trigger for much of the activity above and a basis for decision-making in this regard. ACRRM plans to engage the respondents to this research in a solutions-based process to develop strategies for supporting students, young doctors and urban-based practitioners in their consideration of a procedural career.

4.2 Profile

Doctors had been established in their current practice for a mean of 6.41 years with the range from 1-28 years. They had worked in rural practice for between 1-38 years with a mean of 11.99 years.

Doctors were asked when he/ she left rural practice. The shortest time since leaving was 0 years (or 2002), while the longest time since leaving was 21 years or 1981. The average length of time since leaving was 5.33 years, indicating a cluster of relocations in the past decade.

4.3 Procedural involvement

This group was heavily involved in procedural medicine, indicating that 84.8% of males and 88.9% of females performed procedures when in rural practice. There is also an ongoing interest in procedural practice with 30.4% of males and 22.2% of females currently performing procedures at the same level as when in rural practice.

Indeed, some doctors do not consider themselves to have left procedural practice with a relocation to a less rural area, the survey indicates that 29.1% of the group still undertakes procedures while 70.9% of respondents answered no. This corresponds with the way in which respondents characterise their practice - 5.5% are in specialist and 3.6% in generalist practice in their current locations.

Details of procedural practice in rural medicine comprise 85.5% undertaking a range of disciplines including:

- 34.5% had performed anaesthetics;
- 70.9% had performed obstetrics;
- 61.8% had performed surgery; and
- 25.5% had performed 'other' procedures – comprising gynaecology; ultrasound; radiograph; endoscopy; reduction closed fractures and emergency procedures.

4.4 Influencing factors in the decision to leave

Reasons that influenced the doctor's decision to relocate from rural practice comprised, in priority order:

- issues with spouse/family;
- children's education;

- too much time on call;
- lack of professional support;
- locums in short supply; and
- to pursue further training.

In addition, 22.2% of females and 17.4% of males stated that changes to their capacity to undertake procedures in rural practice had influenced their decision to relocate.

Doctors were asked if changes to their capacity to undertake procedures in rural practice influenced their decision to relocate to a RRMA 1-3 area. 18.2% of doctors responded positively and were asked to detail the issues that had influenced their decision. These factors were, in priority order:

- lack of access to public admitting rights;
- credentialing;
- cost of insurance/ indemnity;
- hospital downgrade;
- difficulties in accessing/ closure of operating theatres;
- time constraints;
- improved services from visiting specialists; and
- the need to provide 24 hour procedural service.

As a validating question, we asked what factors have influenced doctors' choice of current practice location. These included:

- children's schooling;
- lifestyle;
- professional support;
- availability of adequate hospital admitting rights;
- income; and
- availability of work.

4.5 Continuing engagement in rural practice

4.5.1 Likelihood of return

Doctors were asked what the likelihood would be of their relocating to a rural practice at anytime in the future. 16.4% stated the likelihood was high, 25.5% moderate and 34.5% low. 3.6% of respondents stated the likelihood of relocation was nil. For 20.0% of respondents the answer was unknown or from respondents who considered their current practice to be essentially a rural practice.

4.5.2 Teaching and upskilling

In terms of contributing to the on-going teaching and upskilling of rural doctors, 32.7% of the respondents engage in these activities to a significant degree. These included:

- Work with medical students;
- GP Registrars;
- Emergency Medicine teaching/ workshops; and
- EMST.

4.5.3 Professional links

Professional links with rural doctors are maintained by 61.8% of respondents through rural medical organisations or rural communities. These include:

- ACRRM;
- Divisions of General Practice;
- Rural Doctors Associations;
- RACGP Rural Faculty;
- Rural Doctors Network;
- Flinders Parallel Rural Community Curriculum;
- Royal Flying Doctors Service;
- Rural Training Stream of General Practice Education Australia;
- Western Australia Centre for Rural and Remote Medicine; and
- Rural locum work.

5. DISCUSSION

It is evident that many of the issues of family support, education and lifestyle continue to play a significant role in decisions to change the style and location of practice. It is particularly interesting that some of the major barriers to the maintenance of procedural skills also factor in the decision-making process to relocate.

These are issues of professional and material support, systemic changes which militate against staying or combinations of factors that make it difficult to continue procedural practice and to maintain reasonable off-call or vacation periods. However what is also noteworthy is the continuing interest in, and commitment to maintaining links with rural colleagues and organisations and continuing to engage in teaching and mentoring roles.

ACRRM is particularly interested in engaging and extending the influence of this highly skilled group of doctors in roles that assist current and future proceduralists.

As the outcome of this study and with comment provided by members and Fellows, ACRRM intends to:

- find further ways in which this subset of the membership can be supported and resourced;
- encourage and recognise their on-going involvement in teaching; and
- investigate ways in which they can provide procedural role models, within easy reach of the largely urban-based medical student and junior doctor cohorts.

This activity has the potential to address some key concerns emerging from our initial “Barriers” study – these are:

- keeping the professional valuing the rural proceduralist?
- fostering the next generation of proceduralists?
- providing a stronger voice for rural medicine in urban training institutions? and
- providing a greater amount of appropriate and accessible training to both rural doctors and to female proceduralists.

It appears likely that the group responding to this survey provides an excellent starting point for the discussion of these issues, together with education providers and the ACRRM membership as a whole. In the first instance, this data is being provided to the joint RDAA, ACRRM, ARRWAG work in the development of a briefing paper for the AHMAC Working Party in October 2002. It is also being widely circulated for comment.

6. CONCLUSION

It is evident that a number of opportunities exist to engage medical students and junior doctors in the consideration of a procedural career. Rural doctors are useful in this regard, but the use of urban and provincial doctors, former and continuing proceduralists who are keen to assist the continuation of procedural medicine is an opportunity ACRRM wishes to explore. Data on the status of this ex-rural group has been provided in this research report. Procedural doctors who responded to the ACRRM survey have now been approached to form a support and resource network with the following broad terms of reference.

In the establishment of the mentoring network, ACRRM would like doctors to consider a number of scenarios in which they might take a role. Comment is sought on the practicality of the following strategies:

6.1 Action proposal and terms of reference

Among the main issues that have emerged from the research is the need to have procedural medicine more highly valued. There are several points where we could take some action on this:

- providing mentors and advisers to urban and provincially based medical students during their time at University;
- ensuring that rural procedural medicine is more prominent in medical school education – through cases for problem based learning;
- ensuring better feedback and de briefing for students returning from a procedural rural attachment – in order for their experience to be incorporated into their general medical knowledge;
- providing junior doctors in city hospitals with mentoring and career advice on rural medicine;
- playing a role in city-based procedural workshops;
- playing a role in ensuring women students and junior doctors are supported to consider a procedural career;
- providing appropriate and accessible training and upskilling for female proceduralists; and
- maintaining professional links with a rural or remote procedural practice.

Doctors interested in belonging to this group and taking a role in some of the above are being offered options on the means that ACRRM would be able to resource and support the group by:

- providing an electronic network for information and exchange of views;
- responding to requests for specific support and presence at workshops and other educational events; and
- providing additional resources and skills.

This group is currently in development and ACRRM plans to extend its use in the coming year.

ATTACHMENT ONE:

Typology of issues raised in the consultation round

CATEGORY	CONTEXT	EDUCATION/ TRAINING	PROFESSIONAL
POLICY	Current government priority on rural specialist services – in situ versus remote	Incentives available for procedural training Focus of Govt. training policy framework	State government policies on health care delivery and clinical privileging Commonwealth limitations via regulations and recognition Issues with movement between states Govt. policy on workforce numbers and distribution Policy issues of the specialist colleges
COMMUNITY/ POPULATION HEALTH	Community needs Case numbers available locally to maintain currency Regional health and medical profile Precedence given to social dislocation of rural patients	Aspects of access to training in appropriate format and venue Availability of leave and ability to train Facility for context matching – between available programs and community needs	Medical liability – of personnel and key organisations Logistical capacity of care – including pre and post operative
MAINTAIN SKILLS	Govt. educational incentives linked to RRMA codes – current priorities Local demand and means to express this – ie local Division/consortia policy	Access to appropriate skills programs – type, locality and funding Familiarity with training methods – influencing preference Recognition of training – forecast of usefulness and longevity Time constraints – practice arrangements Pressure to maintain particular and generalist skills Plus issues from preceding levels of training – ease of achieving procedural status, connections made, promotion of the training pathway	Credentialing arrangements - barriers Cross recognition issues Standards and benchmarks related to the above Issues related to JCC operation and requirements
ESSENTIAL RESOURCES	Local hospital, theatre and emergency backup Transport issues Range of options regionally	Access to Specialists for specific procedural training Resident/visiting specialist options as support for local services – influence on training and experiential options	Partnering – availability of key colleagues in a procedural team Appropriate ancillary health care team Hospital accreditation status Emergency care, retrieval and backup services and their availability Access to testing and timely investigative processes for diagnosis
KEY PARTNER-SHIPS AND LINKAGES	Rural community support and their awareness of the implications of losing services	Regional options for skills maintenance – their availability and relevance Relationships with specialists –	Key links and arrangements with specialist colleges – degree of rural focus of some colleges

		re ongoing support and mentorship	Recognition Locum provision arrangements Perceptions of competition – generalist/specialist in areas with restricted population.
LEGAL ISSUES	Changing patterns of litigation	Maintenance of standards and benchmarks	Indemnity issues and costs
COST	Degree of promotion of efficacy of urban care Health insurance patterns	Cost of upskilling versus income	Indemnity costs Income recovery Insurance patterns
PERSONAL	Lifestyle – changing preferences Meeting community needs Stress and pressures of practice Family preferences and pressure exerted Doctors age/ personal characteristics Living and working in the same community	Evidence of changing focus for younger/female doctors Opportunities for succession planning	Occupational stress and doctors' well-being The personal costs of being sued Professional status – issues of currency – proceduralists versus others

ATTACHMENT TWO:

AUSTRALIAN COLLEGE OF RURAL AND REMOTE MEDICINE

BARRIERS TO THE MAINTENANCE OF PROCEDURAL SKILLS

ACRRM is investigating the relative importance that rural and remote doctors place on issues that influence their opportunities to gain and retain procedural skills in rural practice.

The following categories and items have emerged from a series of meetings with rural doctors and their organisations.

Would you please rate them using this scale?

1. A significant barrier to retaining procedural skills
2. Of moderate importance
3. Of lesser importance

Policy

Government incentives for procedural training ☐

Government categorisation of rural and remote practice ☐

Current Commonwealth policy on training ☐

State government policies on health care delivery ☐

Difficulties in relocating – obstacles to registration ☐

Regulatory/ recognition issues between Colleges ☐

Recognition of the different requirements of rural practice ☐

Regional health policies currently in place ☐

General undervaluing of the procedural GP ☐

Communities/Practice

Ability to respond to community needs ☐

Levels of community support and awareness of implications of losing services ☐

Harnessing of community opinion in lobbying ☐

Issues relating to changing population needs ☐

Case numbers available locally to ensure currency ☐

Local demand for services ☐

Ability to take leave for training opportunities –time constraints, professional limitations ☐

Levels of colleague or locum support when required ☐

Education and upskilling

Access to appropriate skills programs – type, locality, cost ☐

Pressures of maintaining a broad range of skills ☐

Greater GP input to procedural training positions in hospitals ☐

Recognition of training – credentialing arrangements ☐

Lack of appropriate training for female GPs ☐

Need to achieve multiple standards and benchmarks across medical disciplines ☐

Promotion of the value of maintaining procedural skills ☐

Relative difficulty of achieving procedural status ☐

Inappropriate forms of teaching and mentoring for your requirements ☐

Too few programs to target the next generation of proceduralists ☐

Lack of appropriate recognition/ reward for teachers and mentors ☐

Essential resources

Levels of local hospital, theatre, emergency back-up resources ☐

Transport issues ☐

Access to specialists – resident/visiting for appropriate training and backup ☐

Partnering – levels of access to colleagues with complimentary skills ☐

Access to essential health personnel ☐

Access to investigations on an appropriate timeframe ☐

Ad hoc or patchy resource coverage by health services ☐

Current trends towards centralisation of services ☐

Relationships

Support from regional health organisations/ Divisions in providing options for skills maintenance ☐

Relationships with/ absence of key mentors – colleagues and specialists ☐

Relationships between GP organisations and Specialist Colleges ☐

Perceived competition, professional domain and territorial issues ☐

The level of rural focus of professional organisations ☐

Legal issues

Changing patterns of litigation ☐

Maintenance of multiple standards, benchmarks and qualifications ☐

Cost

Costs of upskilling versus income recovery ☐

Indemnity and other insurance costs ☐

Issues arising from current health economic statements of the costs of treatment in communities vs referral to a regional centre ☐

Costs of professional memberships ☐

Personal and lifestyle

Changing preferences for combining medical and social/family life ☐

Part time practice ☐

Stress and pressures of procedural practice ☐

Living and working in the same community ☐

Changing demographics of the rural medical workforce ☐

The future

Ensuring GPET priorities in rural procedural training ☐

Ensuring regional training consortia adequately address procedural skills and support for advanced training posts ☐

Providing new models of training to respond to the feminisation of the workforce ☐

Providing new models of training/ skills maintenance for part time doctors ☐

COMMENTS

Have we missed a key issue? Please provide details and we will include your feedback.

……

……

……

……

……

……

……

……

When you have completed your rating, will you please re-visit the issues above and identify (Tick) the five issues that you believe should be addressed at the highest priority.

Thank you for your assistance we will provide feedback on the results.

Please return this survey in the envelope provided or fax back by **Wednesday June 5th -** to Anna Nichols at ACRRM – 07 3356 2167

ATTACHMENT THREE:

FACTORS INFLUENCING THE RELOCATION OF RURAL PROCEDURALISTS

ACRRM MEMBERS IN RRMA 1-3

1. What best describes your practice type? (Please circle one)

   General Practice Generalist Practice Specialist Practice

2. How many years have you been in your current practice? _____ years

3. Have you ever worked in rural practice? YES NO (Please circle)

   3a. If so, for how long? _____ years

   3b. When did you leave rural practice? _____ year

   3c. What were the reasons which influenced your decision to relocate from rural practice?_____

   _____

   _____

   3d. What is the likelihood of your relocating to rural practice at any time in the future?

   HIGH MODERATE LOW (Please circle one)

   3e. Did you perform procedures when in rural practice? YES NO

   3f. If yes, please specify._____

   _____

   _____

4. Do you currently perform procedures at the same level?

   YES NO

5. Did changes to your capacity to undertake procedures in rural practice influence your decision to relocate?

   YES NO

6. If yes, what were the key changes? e.g. hospital closure_____

_____

_____

_____

7. If you have not worked in rural practice previously do you have any intention of moving to rural practice at some time in the future? YES NO

8. What factors have influenced your choice of current practice location?_____

_____

9. Do you engage in any teaching or upskilling activities for rural doctors?
YES NO

10. If so, which activities?

_____

_____

_____

11. Do you currently have professional links with rural doctors, rural medical organisations or rural communities?
YES NO

12. If yes, please specify:

_____

_____

_____

Thank you for completing this survey, the information you provide will assist ACRRM to make its member services responsive to your requirements.

ACRRM is currently investigating support mechanisms for procedural doctors and the data that you have provided is very much appreciated.

Please return this survey in the envelope provided or fax back to Anna Nichols at ACRRM – 07 3356 2167