

Allied health and the medical workforce – teamwork, integration and sustainability

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ABSTRACT

In 2003, Services for Australian Rural and Remote Allied Health (SARRAH) and the National Rural Faculty of the Royal Australian College of General Practitioners (RACGP) committed resources to a joint project to identify and model strategies involving the integration of allied health professionals (AHPs) and general practitioners (GPs) in rural and remote primary health care settings in order to improve the financial and personal sustainability of these service providers.

A literature search of electronic databases from 1988 to 2003 located 56 works in English, of which 43 focused the relationship between allied health professionals and general practice, although not exclusively in the rural and remote setting. From this literature, a set of generalisations about the relationship between allied health professionals and general practitioners, particularly in the rural and/or remote setting, were developed. A pilot survey conducted with 17 general practitioners independent of the literature search produced strong correlation with issues identified in the literature. It also revealed poor correlation between GP perception of allied health and the definition of allied health developed by SARRAH.

As a result of discussions arising from a presentation of this data to a conference of GPs in Hobart, in October 2003, the authors developed seven models through which the sustainability of primary health care in rural and remote Australia could be explored through the integration of AHPs and GPs. These models were presented to a workshop group of rural GPs and associated professionals at a rural and remote medical practice conference in Alice Springs in July of 2004, and again to a workshop of rural and remote AHPs at an allied health conference in Alice Springs in August 2004. Discussion of the models at both workshops was compared and recommendations developed as a result.

AIM

Since 1987, much has been researched and written about the relationship between the health differential experienced by rural and remote communities and the shortage of GPs to service these communities, particularly in comparison to urban and metropolitan communities¹. Enhancing the sustainability of rural and remote general practice has increasingly become a theme in strategic thinking and planning to address the GP workforce shortage.²

It is only in recent years, however, with the introduction of the Australian Government Rural and Remote Health Professionals Scholarship Scheme, that government has begun to look at addressing workforce shortages in the allied health professions as a means of also addressing the health differential experienced by rural and remote communities. It was as recently as 2004 that SARRAH published the first Australian Government-funded analysis of allied health workforce in Australia³. There is little in the general practice workforce sustainability literature

that examines the role of AHPs in general practice or in primary health care in general in improving sustainability.

In view of the increasing focus on the role of AHPs in rural and remote primary health care, and the paucity of analysis of the role of AHPs in rural and remote general practice as a sustainability solution, in 2003, SARRAH and the National Rural Faculty of the RACGP committed resources to a joint project to identify and model strategies involving the integration of AHPs and GPs in rural and remote primary health care settings in order to improve the financial and personal sustainability of these service providers.

METHOD

The National Rural Faculty of the RACGP undertook a systematic literature search of four electronic databases 1988–2003, the Australian Medical Index, PubMed, Health and Society and APAIS-Health. The review located 56 articles in English, 43 of which focus on relationship between allied health and general practice. Subsequently, a further two documents were published⁴ which contributed to analysis resulting from the literature review. From this literature review, a set of generalisations about the relationship between allied health professionals and general practitioners, particularly in the rural and/or remote setting, were developed.

A pilot survey was conducted with 17 general practitioners independent of the literature search. These GPs were respondents from the email list of the National Rural Faculty and from the professional network of the researcher. The survey aimed to assess GP perceptions of the range of health professionals aggregated under the general term 'allied health' and of the role of these AHPs in primary health care.

The results of the survey and the results of the literature search were correlated with the classification of allied health professionals discussion paper developed by SARRAH between 2002 and 2003 to stimulate discussion and debate regarding defining allied health.²⁰ The data was presented to a conference of GPs in Hobart in October 2003.

As a result of discussions arising from this presentation, the authors developed seven models through which the contribution made by the integration of AHPs and GPs to the sustainability of primary health care in rural and remote Australia could be explored. These models were presented to a workshop group of rural GPs and associated professionals at a rural and remote medical practice conference in Alice Springs in July of 2004, and separately to a workshop of rural and remote AHPs at an allied health conference in Alice Springs in August 2004. Discussion of the models in both workshops adopted a focus group approach, in which the workshop leaders acted as facilitators of discussion to ensure all members of the group were able to develop and contribute their own thoughts. A scribe in each discussion group recorded salient points from the discussion. The group facilitators subsequently transcribed and analysed these notes independently, thus offering an element of inter-rater reliability. Recommendations developed as a result.

RESULTS

From the **literature review**, a number of authors encapsulated salient features.

Millsteed¹ reminds us that recruitment and retention is as much an issue for allied health as it is for GPs and advocates for a cohesive national strategy which includes:

- adoption of Primary Health Care approach
- education and preparation of allied health for practice
- identification of rural and remote competencies.

Research by Kupper-Smith & Wheeler² in the US, Breen et al³ in the UK and Byles et al⁴ in Australia indicate that GP familiarity with the specific allied health discipline has a major impact on propensity to refer and that the value placed on referral reports is not as high amongst GP recipients as it is amongst the allied health professionals issuing them.

Fridgant et al⁵ in Victoria found that integration of GPs into the health system was seen as positive by GPs and all other staff in the hospital and community health system. The barrier was seen to be the system itself, including structural, procedural and organisational factors; communication difficulties; variability in roles and expectations and resource allocation and funding methods.

Wiggers, Sanson-Fisher & Halpin's⁶ survey of 2623 randomly selected adults in Lower Hunter Valley identified that disadvantaged respondents were more likely to access medical services only, and less likely to consult allied health. This finding was supported by Schofield⁷ who found that low income is a barrier to accessing ancillary health services.

A "project" or "trial" focus may be seen to be a positive factor. Brandis & Tuite⁸ found referral to the Falls STOP home-prevention inspection team by GPs was beneficial to both patients and GPs. Simmons's⁹ study of NZ diabetes project showed patients, GPs, nurses and allied health could agree on scope of care on case-by-case basis, and criteria for referral between skills sets. From the South Australia HealthPlus Co-ordinated Care Trial Hurley, Kalucy & Battersby¹⁰ found that predictors of successful collaboration included knowledge and respect for roles and responsibilities, clearly perceived benefit and effective communication.

Robert and Stevens¹¹, in a review of 8 UK studies, found several benefits to on-site referral by GPs to physical therapists including reduction in waiting times, convenience, reduced cost to the patient, lower practice cost per treated patient and a better recovery time.

O'Sullivan and Bolger¹² and McNair et al¹³ both stress the need for interdisciplinary teamwork, and for training in the interdisciplinary setting. Thoroughgood¹⁴, in addition, stresses the need for allied health involvement at the strategic planning and policy levels in health care services, to ensure appropriate integration.

In 2004, the Queensland Rural Medical Support Agency's *Solutions for the Provision of Primary Care* recommended pooled funding – local infrastructure pools its funding to maximise regional infrastructure applications e.g. Divisions, Regional Health Authorities – and the use of Ambulance Officers as Therapy Assistants under the supervision of allied health and as physician assistants under GP supervision.¹⁵

In the **pilot survey** of GPs, respondents identified some 49 different professions / job descriptions in response to the question "Who are allied health professionals?" When asked the benefits, the barriers and/or issues involved in providing primary health care through a multi-

disciplinary team approach in rural and remote communities the responses correlated positively with the benefits and issues identified in the literature review.

GP identified allied health professionals

GP identified profession	Percentage of responses identifying profession as being part of allied health	GP identified profession	Percentage of responses identifying profession as being part of allied health
Physiotherapy	Over 90%	Ultrasonographer	Over 10%
Occupational Therapy	Over 80%	Acupuncture	Over 10%
Podiatry	Over 80%	Asthma Educator	Over 10%
Psychology	Over 80%	Dentist	Over 10%
Social Work	Over 80%	Health promotion	Over 10%
Nursing/Practice Nurse	Over 75%	Orthoptics	Over 10%
Dietetics	Over 60%	Prosthetics	Over 10%
Audiology	Over 50%	Aboriginal Health Worker	5%
Diabetes educator	Over 30%	Aboriginal Liaison Officer	5%
Optometry	Over 30%	Cardiac Rehab Officer	5%
Pharmacy	Over 30%	Carer	5%
Radiography	Over 30%	Diversional Therapist	5%
Speech Pathology	Over 30%	Masseur	5%
Chiropractor	Over 25%	Osteopath	5%
Counsellor	Over 25%	First aider	5%
Ambulance Officer	Over 10%		
Drug and Alcohol Counsellor	Over 10%		

GP identified BENEFITS of working with AHPs:

- specialist evaluation, treatment, advice and follow up across the respective disciplines
- home visits and home assessments
- ongoing rehabilitation provided – improved continuum of care
- improved access for clients
- reduced waiting times for clients
- reduced costs for clients
- improved outcomes through a co-ordinated, integrated approach to health care
- development of integrated care plans
- integrated patient records
- assist with/reduce the workload of the GP
- reduced practice-per-patient costs with on-site allied health services
- health promotion
- community education.

GP identified BARRIERS to effective working with AHPs

- defining roles and responsibilities
- business structure and planning
- recognition of status and autonomy
- team development and training
- financial arrangements
- legal requirements
- resources
- effective communication strategies.

From discussion resulting from the **presentation** of this initial data to the conference of GPs in Hobart, seven models for enhancing and supporting multi-disciplinary team practice in primary health care were developed. These models were presented to the next two workshops as having the features outlined in the bullet points below. Discussion from the two separate workshops have been combined beneath these.

Model one: simple awareness raising^{6,7,8}

- Definition of allied health requires greater clarity.
- GPs encouraged to value allied health reports on referrals more e.g. EPC item numbers and requirements for reporting.
- Encouraged to develop in-consulting-room or in-hospital database of local or visiting allied health, and referral expertise.
- Enhance continuity of care strategies.

The detailed analysis on this model was minimal as points suggested were seen as basic, common sense and first step strategies.

Model two: on site referral¹⁵

- Allied health sited in same practice as GPs.
- Fee for service maintained all round.
- Efficiencies in shared overheads.
- Patient access advantages, plus waiting time and cost reductions.
- One-stop shop primary health care.
- Lower practice costs per patient.

Whilst the model proposed by the literature maintains fee for service, programs such as More Allied Health Services and Regional Health Service funding has meant that there are now some paid allied health positions.

Within this model, the issue of inter-professional relationship and network creation was emphasised in the group discussion. Team practice is built, relationships and familiarity with practice developed. The GP and the AHPs are able to practice continuity of care and opportunistic episodes of care. It was felt by some that patients having to attend only one location for health care decrease numbers of 'no-shows'. Co-location builds trust and improves roles. Through the use of information technology there is potential to have a common clinical record.

Issues identified included: which AHPs is it useful to have co-located, should they be in private practice or a paid position; what constitutes on-site and issues regarding the infrastructure – physical room to practice, ease of use, accessibility for patients. Does the GP refer exclusively to the co-located practitioner and how are these referrals made? Do the patients get a choice to see an AHP from the same discipline that is not co-located? Who is responsible for insurance, education and professional development needs, mentoring, locum support for the health professionals involved? What are the communication strategies, including referral, reporting, and clinical record keeping?

It was felt that there was a need to have someone on the patient care decision making team who has understanding of the respective roles of the allied health disciplines. However, the appropriateness of this model depends on the size of the community and the practice. It is not 'one size fits all'.

Model three: project or trial approach^{12,13}

- Team-based approach to Commonwealth or state programs.
- More than just More Allied Health Services i.e. focus on the position.
- Involves integration strategies e.g. attempt to reach consensus local adaptation of protocols an guidelines, division of responsibility.
- Regional modelling – achievable, measurable.

It was agreed that such approaches improves the flexibility of the service and enables more targeting of services to meet the local needs, allowing flexibility with demographic variability – a particularly useful feature, for instance, when attempting to deliver equitable services to Aboriginal or Torres Strait Islander members of a population in which there is significant demographic variation. .

The project or trial approach enables the development of a flexible co-ordinated multi-disciplinary team approach to the provision of health care that is suited to the particular community where the trial or project is to be conducted. It facilitates recruitment and retention, team dynamics, communication and reporting processes, and regular access to allied health services through regular schedules. GPs may be able to access a variety of AHPs supported through a single point of access provided by the project.

It was noted that the project or trial could be undertaken by pooling of funding or through known initiatives (Regional health services). Preliminary consultation and setting up of the trial in a regional application can also allow for integration into other local services, and the inclusion of structures to support the recruitment and retention of the staff required.

Professional development was also seen as a strength of this model, which would decrease professional isolation at the same time as increasing opportunities for postgraduate and undergraduate multi-disciplinary and interdisciplinary education and training. Interestingly, it

was the GP discussion group which commented that there was a need for GPs to be more proactive in their support for patient access to services by AHPs.

Potential impediments to model of service implementation are resistance by management to changes in the provision of skills and management structures. A trial or project implies short term funding, a finite program of activity, and therefore a lack of sustainability which will impact on staff employed under the project and local communities. For an impact on health status to occur funding and service provision needs to be long term, particularly for those projects evaluated to be effective.

Model four: competency-based approach⁵

For example, develop a national strategy which includes:

- Adoption of Primary Health Care approach.
- Education and preparation of AH and GPs (and other health professionals) for practice in rural and remote primary health care teams.
- Identification of rural and remote competencies for allied health and other team members (including GPs).

It was felt that a competency-based primary health care approach to health service delivery challenges the medico-pharmaceutical model, encourages a multi-disciplinary approach to patient care and is in line with where future policy and practice are likely to head nationally and internationally. The common goal orientation to community needs, as opposed to acute care, was seen as an opportunity in this model.

Divisions of General Practice and the Regional GP Training Providers provide ready infrastructures to facilitate/organise and present training at regional level. However, the majority focus on GP education and training. AHPs identified the need for the Divisions to become Divisions of Primary Health Care, particularly in rural and remote regions, where AHPs have limited access to other providers of education and training compared with their metropolitan counterparts. The opportunity for multi-disciplinary education via satellite to small rural hospitals was one suggestion. GPs expressed the need for a greater understanding of AHP referral, and the range of services each allied health discipline provided.

Such changes could impact on recruitment and retention of the all members of the multi-disciplinary team. However the achievability of Divisional transformation depended on the Division's regional size.

Funding is required within this model for the primary health care co-ordination – to minimise the red tape, management and time impact required of the general practitioner. The model is thus not inconsistent with Model Seven.

Model five: socio-graphic approach^{10,11}

- Government subsidy for allied health referral by GP-led primary health care team for socially disadvantaged in practice population PIP version of EPC.
- Use of allied health by PHC team for screening and out-reach clinics in disadvantaged socio-demographics eg. EPC+.
- Subsidised allied health to support GP workforce need eg. solo GPs, 1-2 GP-short.

In the analysis of the model it was noted that socially disadvantaged groups were currently unable to access private AHPs, and also often have difficulty accessing AHP services through the public sector due to long waiting lists. There was also difficulty recruiting AHPs to public positions.

A Government subsidy for AHP treatment for socially disadvantaged is specific strategy that would increase the access to AHPs in these regions – an expansion of services similar to that for EPC MedicarePlus allied health initiative, but broader in its application (and not limited to EPC), and not necessarily limited to the provision of services by private AHPs. It was thus possible to maintain professional independence – although availability of private practitioners in a sociographic region could remain problematic, should any such program be limited to these providers.

Alternatively, funding could be made available to support provision of service through the public sector – cashing out a service or as currently operates with Department of Veterans Affairs (DVA), where a public sector AHP provides a service, the public hospital or health centre through which they provide it bills the DVA, and a fee for service is returned to the hospital/community health centre's budget.

Regardless of the approach, commitment to public health, networking opportunities and a team approach were seen as strengths of this model, along with a positive impact on screening and outreach services.

Administration could be an issue depending on the funding/ administrative structure, unlike the project or trial model, where the program and its budget are finite and time-limited. There is a need to be wary of any duplication of services already available under public sector funding or private providers.

Model six: systemic approach to overcome barriers to integration of allied health into primary care system⁹

- Structural, procedural and organisational factors – closing the loop, risk analysis.
- Communication difficulties.
- Variability in roles and expectations.
- Clarification of lines of responsibility and decision making vs. consultative approach.
- Resource allocation and funding methods.

In current applications, this model is seldom seen to be needs driven, and often implemented without enough consultation with all stakeholders e.g. MAHS. Nor is it adequately linked with existing services, or support services for the AHPs. It thus seems a fragmented model, with a short term benefit of extra service delivery where none existed before. However there is lack of commitment to such services, and a false assumption that the States will take over programs that have been successful after initial Commonwealth input.

It was thus felt that the model was more likely to work with the inclusion of all stakeholders from the outset, and that the concomitant identification of common goals, and the capacity to regionally and locally adapt these, could be a strength.

Factors for implementation and success depends on the funding holder (and the power they wield/ attitude to them by other stakeholders), the inclusion of all members in consultation

and implementation, regional and local adaptation of common goals, and the articulation of roles.

Model seven: pooled funding or co-ordinated care^{14,19}

- Regional infrastructure combines funding to maximise local applications eg. local allied health, visiting allied health.
- Ambulance Officers in downtime as therapy assistants to allied health professionals.
- Ambulance Officers in downtime as physician assistants to GPs (and other specialists).
- So why not allied health in physician assistant role as well?

Combining funding for regional infrastructure to maximise local application has value in both rural and remote communities and in areas of isolations, resulting in good use of resources and funding. Provided the model is relevant to the context and based on effective needs analysis, it would be supported by the community and could work well. It would enable better co-ordination of services, reduce administration, and reduce duplication. As with all previous models, postgraduate and undergraduate multi-disciplinary and inter-disciplinary education and training to enhance multi-disciplinary team practice would be both enhanced and necessary for this model to work. Aboriginal Community Controlled health Organisations were seen as an example in which this approach already works well.

COMMON THEMES

A number of common themes emerged from general discussion regarding what is working for practitioners in their practices in the topic area.

The education and training of all members of the primary health care team, including members of the medical, nursing and AHP should provide competencies and preparation for practice in rural and remote communities and as members of multi-disciplinary teams. Education and training needs to be interdisciplinary and multi-professional, encompassing the scope of practice and raising awareness. Such education and training should be core curriculum at undergraduate level and continue at postgraduate level.

Co-location of AHPs and GPs assisted in building relationships, discussion of clients and informal referral processes. For community health/public sector AHPs, often the only link is when the AHP contacts the GP. Developing relationships with GPs is more difficult with outreach allied health services and a calendar for GPs timetabling the AHP visits was seen as useful. Practice manager/medical receptionists were a noted link in the relationship between AHPs and GPs, often acting as case managers, co-ordinating services for clients and staff and providing reminders and prompts for GPs.

Both GPs and AHPs identified the need to develop local networks where local health professionals meet at both a professional and social level. This enables the GP to become aware of what is available, fosters working relationships and team building, even when the professionals are not co-located. The rate of referral will often reflect the personal knowledge the GP has the local AHP's ability and effect. The relationship between the AHP and the GP is important to the success of any multi-disciplinary work.

Facilitated links between AHPs and GP seen to increase practice efficiency and will ultimately affect longer term sustainability. Allied health services need to be managed by an allied health

manager with any model or system. Provision of communication systems between all members of the primary health care team and management structures strengthens the multi-disciplinary team. Team co-ordination, support, team meetings, and case conferencing were all seen as positive elements of such a communication system.

GP referral practices and waiting lists, and AHP shortages, were both seen as very practical impediments to improvements in GP~AHP integration. Both professions were already very busy in rural and remote Australia. Education and planning were thus key change management requirements in improving GP~AHP integration, along with consumers involvement.

Additional strategies for improvement included the involvement of AHPs in strategic planning at the state and national level and closer analysis of existing models in which AHPs and GPs work together well.

The appointment of a GP Liaison Officer within the Divisional structure to formally undertake this role was a strong recommendation from both workshops and could have a major impact on the outcomes of Australian Government funded programs such as MedicarePlus and allied health services under the Rural Health Strategy.

The Rural, Remote and Metropolitan Area classification was not seen as being particularly helpful in the co-ordination of AHP and GP integration in rural and remote primary health care delivery.

DISCUSSION

The need for a definition

In 2000 the Federal Government committed \$49.5 million over four years through the Divisions of General Practice for the provision of allied health services to rural general practices. From July 2002 – June 2003 the More Allied Health Services (MAHS) funded 171.5 full time equivalent “allied health positions”. 32% of these were nursing services, 27% were psychologists and the remaining 41% were split between physiotherapy, podiatry, social workers, Aboriginal health Workers, speech pathologists, audiologists and others. In May 2004, 11 new MBS item numbers were introduced for allied health services provided under GP-referred Enhance Primary Care benefits.

The difficulty with the development and implementation of any health policy involving AHPs relates to the lack of clarity or definition over what is meant by the term “allied health”, much depending on the context of the use. Over the last few years, since the implementation of the MAHS program, the definition has changed from being all health professionals other than doctors to exclude members of the nursing profession and now to focus on health professionals providing clinical services. Services for Australian Rural and Remote Allied Health (SARRAH) has produced a discussion paper titled *Clinical Allied Health Professions – a method of classification developed from common usage of the term “allied health” – as applicable to rural and remote Australia*¹⁶ which highlights the difficulty in attempting to define allied health. The pilot survey conducted as part of this project reinforces the confusion that currently exists amongst GPs, and the need for greater GP education on allied health – the range of professions, the services they provide, and appropriate referral practices. The two workshops with AHPs and with GPs both emphasised again and again the need for GP education in this.

There remains, however, a need at both Commonwealth and Jurisdictional level for a clear understanding of the term allied health for future policy or program development and for

these professions to be involved in consultation and planning prior to the implementation. Without such clarity, there is no common understanding on the basis of which GP education can be undertaken. GP, and multi-disciplinary or inter-disciplinary, education has emerged from this project as primary strategies for improving the relationship between GPs and AHPs as a sustainability strategy for rural and remote primary health care. Model One, awareness-raising, can be seen as part of this overarching need for strategic education, rather than as a discrete model in its own right.

The models, and how they stood up

Indeed, no single one of the models examined by the two groups, GPs and AHPs, emerged as a stand-out solution. Model Two, on-site referral, was generally seen as a positive strategy, depending on context. The strengths of it were in its capacity to enhance the relationship between AHPs and GPs, achieve practice-based efficiency improvements, and deliver better services and greater and improved access to patients. The rural hospital was seen as just as useful a locus for the co-ordination of on-site co-location as a GP practice, however, and co-ordinated rotation of AHPs through such a hospital seen as just as useful as permanent AHPs sharing a practice with permanent GPs. The model thus emerges as a strategy with a number of variations which merits promotion to GPs and AHPs in a sustained modelling exercise. But it is a strategy rather than a model.

The next three models, the Project or Trial Approach, the Competency-based Approach, and the Sociographic Approach, also emerged more as strategies or strategic frameworks which could benefit the sustainability of rural and remote primary health care delivery through the integration of GP and AHP services, depending on the context and manner in which they were implemented. Infrastructural considerations, and the sources of funding and loci of power, dominated and constrained the discussion of all three models.

In the view of these authors, both the competency-based approach and the sociographic approach demand further examination and research. Both have ideological underpinnings that may have positive outcomes for the sustainability of rural and remote primary health care – the former in redressing the medico-pharmacological dominance of PHC and nurturing multi-disciplinary teams that will enhance consumer access; the latter in improving access by the sociographically disadvantaged to allied health services in a manner that may also improve GP~AHP sustainability – if, for instance, co-ordinated with a strategy such as co-location (model two). Method of design and implementation are crucial to the success of any strategy in either framework, however. Involvement of all stakeholders at both stages seems crucial, along with a redress of the power imbalance inherent in the locus of power residing with the source of funding. The implicit demonising of government for, on one hand, being the source of funding but, on the other hand, hampering implementation with bureaucrat-centred management was evident in discussion on all three approaches.

This same implicit problem of locus of power/course of funding was levelled at the Commonwealth in discussions on Model Six, the Systemic Approach. Strategies emerging from the Commonwealth's strategic analysis of the health of the population, and current health care delivery options, such as the MAHS program, were criticised as piecemeal and lacking in continuity – or rather, continuity was based on the premise that another funding authority, the State Government, would pick up the tab next. The systemic nature of the Commonwealth's approach here is clearly not systemic enough. The strategy (e.g. The MAHS Program) falls through the system, and could have been predicted to do so from the outset given the method of design and implementation. Inadequacy of community needs assessment and of consultation with key stakeholders is the perception from ground level of the system's locus of power – in this case, the Commonwealth.

Model Six thus still stands as a model, pending further examination. So too does Model Seven, Pooled-funding and Co-ordinated Care, which sustained strong support from both professional groups as a means of maximising local resources and achieving improvements through the fostering of multi-disciplinary teamwork. The potential to be further explored here is the extent to which any of the strategies in Models Two, Three and Four can assist in ensuring the sustainability outcomes of Model Seven, and the extent to which sociographic disadvantage can be addressed through the incorporation of strategies suggested in discussion of Model Five.

CONCLUSIONS

It needs to be said that the research undertaken to date in this project cannot be seen as producing substantive results. The pilot survey was not randomised and can only be presumed to be interest-based in response. The literature search was confined to a limited range of channels. And the two workshops were equally self-selective in attendance. Based on the triangulation of the three methods, however, there is sufficient qualitative consonance to justify further comprehensive research, using a combination of action-research-based modelling and survey in the area of the sustainability improvements that can be made to primary health care services in rural and remote Australia through the integration of GPs and allied health professionals.

From the examination of the models put to the workshop groups, however, a number of **principles** have emerged that will provide a key to such strategies aimed at achieving such sustainability improvements:

- the identification and involvement of stakeholders from the outset
- the identification of common goals based on community and professional needs
- the articulation of roles, with particular attention to the separation of the locus of power from the source of funding
- local and regional adaptation in implementation.

In addition, certain **strategies** have emerged as serving the same end:

- multi-disciplinary teams
- education – both of GPs about AHPs, but also of GPs and AHPs in the multi-disciplinary setting, and at the undergraduate level, and of the community
- co-location of GPs and AHPs – either in virtually, by improved local referral practices, or in the same practice site – be this a rural hospital, or a primary health care practice
- co-ordination of care and pooled funding – to maximise access to local resources, by including all three of the above strategies plus the project or trial approach.

In the Australian context, particular care must be paid to the needs not only of public sector practitioners but also private practitioners. The principle of private practice runs as strongly amongst AHPs as it does amongst GPs, and solutions which respect this tradition are as likely to succeed as ones in which the funding infrastructure retains fiscal as well as infrastructural control over implementation.

The combination of pooled-funding and co-ordinated care, for instance, stands as one model that could sustain both research and modelling in a way which applies all of the above principles and strategies. Given its power to uncover the fundamentally disabling nature of the collusion of locus of power with source of funding in Model Six, systemic analysis may well provide an overarching framework for a evaluating the achievements of such a research and modelling exercise.

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PRESENTERS

Shelagh Lowe is the acting Executive Officer for SARRAH and manager of the Australian Government Rural and Remote Health Professional Scholarship Scheme. With a background in physiotherapy, she has a passionate interest in the health of rural and remote communities, advocating for equity of access to allied health services in the bush through active roles on the Australian Physiotherapy Association’s National Rural Issues Committee, Chair of the Australian Rural and Remote Allied Health Taskforce of the Health Professions Council of Australia and as Deputy Chair of the National Rural Health Alliance for the two years prior to her appointment with SARRAH.

Richard Lawrance is Director of the National Rural Faculty of the Royal College of General Practitioners, having joined the organisation in 1996 as an Education and Development Officer and was responsible for the College’s first national analysis of the QA and CPD needs of rural and remote GPs. He has a background as an English, Speech and Drama teacher, training in education after having repeatedly fainted at the sight of blood in his first year as a medical student. Richard developed a range of educational services to complement and support the Faculty’s Graduate Diploma in Rural General Practice, now being delivered nationally through regional GP training providers.