QRMSA
Queensland Rural Medical Support Agency

Solutions for the Provision of Primary Care to Rural & Remote Communities in Queensland

Summary Report
Solutions for the Provision of Primary Care to Rural and Remote Communities in Queensland

SUMMARY

Queensland Rural Medical Support Agency

March 2004
QUEENSLAND RURAL MEDICAL SUPPORT AGENCY 2004
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AUTHORS
Kristine Battye, Director, Kristine Battye Consulting Pty Ltd
Col White, Data/Research Manager QRMSA
Sheilagh Cronin, Medical Advisor to QRMSA
Nigel Bond, Research and Policy Analyst, QRMSA
Chris Mitchell, Chief Executive Officer, QRMSA

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## Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>AAPM</td>
<td>Australian Association of Practice Managers</td>
</tr>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACCHS</td>
<td>Aboriginal Community Controlled Health Service</td>
</tr>
<tr>
<td>ACRRM</td>
<td>Australian College of Rural and Remote Medicine</td>
</tr>
<tr>
<td>AGPAL</td>
<td>Australian General Practice Accreditation Ltd</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>AMC</td>
<td>Australian Medical Council</td>
</tr>
<tr>
<td>AMWAC</td>
<td>Australian Medical Workforce Advisory Committee</td>
</tr>
<tr>
<td>ARRWAG</td>
<td>Australian Rural and Remote Workforce Agencies Group</td>
</tr>
<tr>
<td>CME</td>
<td>Continuing Medical Education</td>
</tr>
<tr>
<td>DPI</td>
<td>Department of Primary Industries</td>
</tr>
<tr>
<td>EN</td>
<td>Enrolled Nurse</td>
</tr>
<tr>
<td>FRACGP</td>
<td>Fellow Royal Australian College of General Practice</td>
</tr>
<tr>
<td>FTE</td>
<td>Fulltime Equivalent</td>
</tr>
<tr>
<td>FWE</td>
<td>Fulltime Workload Equivalent</td>
</tr>
<tr>
<td>HECS</td>
<td>Higher Education Contribution Scheme</td>
</tr>
<tr>
<td>HACC</td>
<td>Home and Community Care</td>
</tr>
<tr>
<td>HIC</td>
<td>Health Insurance Commission</td>
</tr>
<tr>
<td>ICPA</td>
<td>Isolated Children's Parents Association</td>
</tr>
<tr>
<td>IHW</td>
<td>Indigenous Health Worker</td>
</tr>
<tr>
<td>GP</td>
<td>General Practitioner</td>
</tr>
<tr>
<td>GPA</td>
<td>General Practice Australia</td>
</tr>
<tr>
<td>GPEA</td>
<td>General Practice Education Australia</td>
</tr>
<tr>
<td>ITIM</td>
<td>Information Technology/Information Management</td>
</tr>
<tr>
<td>JHO/JMO</td>
<td>Junior House/Medical Officer</td>
</tr>
<tr>
<td>MEO</td>
<td>Medical Education Officer</td>
</tr>
<tr>
<td>MORPP</td>
<td>Medical Officer with Right to Private Practice</td>
</tr>
<tr>
<td>MSRPP</td>
<td>Medical Superintendent with Right to Private Practice</td>
</tr>
<tr>
<td>OATSIH</td>
<td>Office of Aboriginal and Torres Strait Islander Health</td>
</tr>
<tr>
<td>OTD</td>
<td>Overseas Trained Doctor</td>
</tr>
<tr>
<td>PBS</td>
<td>Pharmaceutical Benefits Scheme</td>
</tr>
<tr>
<td>PGY1/2</td>
<td>Postgraduate Year 1 or 2</td>
</tr>
<tr>
<td>PIP</td>
<td>Practice Incentive Program</td>
</tr>
<tr>
<td>QAS</td>
<td>Queensland Ambulance Service</td>
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<tr>
<td>QRFMN</td>
<td>Queensland Rural Medical Family Network</td>
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<tr>
<td>QRMSA</td>
<td>Queensland Rural Medical Support Agency</td>
</tr>
<tr>
<td>RACGP</td>
<td>Royal Australian College of General Practice</td>
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<tr>
<td>RAN</td>
<td>Remote Area Nurse</td>
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<tr>
<td>RDAA</td>
<td>Rural Doctors Association of Australia</td>
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<tr>
<td>RFDS</td>
<td>Royal Flying Doctor Service</td>
</tr>
<tr>
<td>RN</td>
<td>Registered Nurse</td>
</tr>
<tr>
<td>RRMA</td>
<td>Rural, Remote and Metropolitan Areas</td>
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<tr>
<td>RWA</td>
<td>Rural Workforce Agency</td>
</tr>
<tr>
<td>SWPE</td>
<td>Standardised Whole Patient Equivalent</td>
</tr>
<tr>
<td>TRD</td>
<td>Temporary Resident Doctor</td>
</tr>
<tr>
<td>UDRH</td>
<td>University Department of Rural Health</td>
</tr>
<tr>
<td>VMO</td>
<td>Visiting Medical Officer</td>
</tr>
<tr>
<td>VR</td>
<td>Vocational Registration</td>
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1. Introduction

The Queensland Rural Medical Support Agency is a state-based Rural Workforce Agency funded by the Commonwealth government to support the provision and retention of adequate numbers of high quality, highly skilled health professionals in rural and remote Queensland. Queensland, like other Australian states and countries including Canada, United States of America, South Africa, New Zealand and the United Kingdom, experience great difficulty in recruiting and retaining doctors to work in rural and remote areas.

This policy paper has been developed to underpin the strategic direction of the Queensland Rural Medical Support Agency to support the development of medical workforce solutions in order to deliver sustainable primary care based on the principles of equity, accessibility and quality to meet the needs of rural and remote communities.

The key objectives of this policy paper are to:

- Identify the historical and current factors resulting in the rural medical workforce shortage, and scope the impact of the shortage on community well-being and service provision
- Review workforce recruitment and retention strategies and those employed by the medical and other professions
- Review current models of primary care service provision in Queensland and other states
- Appraise current models of primary care and identify strategies to improve sustainable service delivery using information gathered from the literature
- Develop principles for sustainable primary care to underpin the development of models to support sustainable health service delivery in rural and remote areas

For the purpose of this document, discussion has focused on workforce issues impacting on State Local Government Areas RRMA 4 to 7 in Queensland as classified by the Rural Remote Metropolitan Areas indices developed by the Department of Primary Industries and Energy, and Dept of Human Services and Health (1994).

The methodology employed to develop the paper included:

- An extensive literature review
- Industry scoping including interviews with doctors contracted under the 5 year program (known as “Docs for the Bush” in Queensland), compilation and analysis of current models of primary medical care workshopped with key stakeholders
- Synthesis of information to develop principles for sustainable primary care and new models of service delivery

This summary document seeks to provide a brief overview of the key factors contributing to the rural medical workforce identified through the literature review and industry scoping. This summary describes adaptations to current models of primary care service delivery in rural and remote Queensland that provide solutions to key factors contributing to recruitment and retention ie practice ownership, heavy after-hours and on-call burden and lack of a critical mass of doctors to provide primary care to small communities, and procedural services in rural areas. In addition the summary outlines key principles identified to evaluate new models of primary care service delivery, presents several new models for consideration. Because this is a summary, further detail supporting the rationale of models and supporting work to be undertaken to implement them can be found in the principal research document.

2. Scoping the Problem

A brief snapshot of the Queensland primary care medical workforce at May 2003, showed that there was a theoretical deficit of approximately 74 practitioners in rural and remote Queensland (RRMA 4–7), high mobility of practitioners, and reliance on temporary resident doctors to partially meet workforce shortages.

2.1 Historical Factors

The historical factors contributing to the medical workforce shortage in rural and remote areas is largely a result of convergence of government policy in the 1990s. Until the late 1980s the size, structure and distribution of the medical workforce was largely unregulated by the Australian governments. However, in the late 1980s attention began to focus on the size and distribution of the workforce as medical services expenditure increased rapidly. Furthermore, there was no correction of the geographic and sectoral undersupply of practitioners, with an oversupply of practitioners in capital cities, undersupply in rural and remote areas, and a shortage of practitioners providing services to indigenous people.

In the mid 1990s the federal government instigated a number of measures to slow the growth in the overall size of the medical workforce, and affect structure and geographical...

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distribution. These included:
- Restricting the number of Australian medical students, capping intake in 1996.
- Reduction in number of GP training places
- Immigration restrictions
- Provider number restrictions for Overseas Trained Doctors (OTDs) - only able to access provider numbers if they worked in ‘districts of workforce shortage’, and 10 year moratorium
- Vocational registration – limited the issue of provider numbers to doctors who were recognised as medical practitioners, or were on a recognised postgraduate training program

These measures have limited the supply of medical practitioners in Australia, and had some impact on the distribution of the medical workforce in rural and remote areas with the number of doctors working in these areas increasing by 11%. However the mal-distribution of the medical workforce and workforce shortages persist, concurrent with a high turnover of doctors in rural and remote Queensland and other states.

2.2 CURRENT FACTORS
The current factors contributing to the supply of doctors seeking to work in rural and remote areas are:
- An ageing general practice workforce
- Changes in participation and work patterns
- Increased participation by women in the medical workforce

These factors interact and compound the problem of rural workforce supply.

Over the last 15 years, age profile trends show that the general practice workforce (across the geographical continuum) is ageing, but older doctors carry a higher proportion of the workload. Recent data purchased by the Queensland Rural Medical Support Agency shows that over a 12 month period (April 2002–March 2003) 59% of services billed to the HIC by Queensland doctors were provided by doctors over 45 years, who comprised 52% of the Queensland general practice workforce. Over 14% of doctors in Queensland RRMA 4-7 are 55 years or older. Current factors such as the rising medical indemnity insurance premiums may result in an earlier exit of these doctors from the workforce.

Therefore over the next 5 years there could be an exodus of doctors from rural and remote Queensland in excess of 120 doctors based on QRMSA data.

The number of women entering medicine is increasing with more than half the current intake being female. In 1998 women represented about one third of the general practice workforce, in comparison to 1984-85 where women comprised just over one fifth. Whilst women are choosing general practice as it provides greater flexibility to meet family/social and professional objectives, they are providing fewer services due to part-time work and temporary absence for family reasons. In Queensland, during the 12-month period April 2002 to March 2003, 36% of GPs billing HIC were female, however, they carried only 25.7% of the Fulltime Workload Equivalent. Furthermore, female GPs are under-represented in rural practice particularly in the under-35 year age group.
Changes in work patterns are emerging with younger doctors seeking to work shorter hours to have time for family, social and recreational activities. To further explore work patterns, the Queensland Rural Medical Support Agency compared fulltime workload equivalent contributions across a selection of rural and urban Divisions of General Practice. The analysis identified geographical differences in workload, with rural male practitioners tending to carry a higher workload compared to their urban counterpart up until the age of 55 years. In addition, approximately 15% of rural practitioners provide in excess of 1 Fulltime Workload Equivalent and carry 51% of the rural workload (Figure 1). In urban areas, again about 15% of urban practitioners provide in excess of 1 Fulltime Workload Equivalent, and carry 43% of the workload. In comparison approximately 27% of both rural and urban female GPs are providing less than 0.5 Fulltime Workload Equivalents.

Perhaps of greater concern is the relatively large number of male practitioners providing less than 0.5 of a Fulltime Workload Equivalent. For rural areas, they comprise 42.66% of total providers and 30.45% in urban areas. The large number in rural areas could be explained in part by the use of Queensland Health relievers who provide locum relief for Medical Superintendents with Right to Private Practice (MSRPP) and Medical Officers with Right to Private Practice (MORPP) together with a substantial use of locums provided by agencies such as QRMSA.

Strategies to increase the number of doctors in the workforce and provide services across the geographical continuum must consider the changing work patterns that are now evident. Obviously benchmarks that use ratios such as GP: population underestimate the number of doctors required as 70% of doctors are not working to potential capacity. What strategies can be developed to tap into this existing capacity? Conversely, if doctors are choosing to exercise the option of providing fewer services to fit with their lifestyle choices, then consideration must be given to increasing the number of GP places in training, or identifying what factors must be addressed to support increased participation.

The AMWAC Medical Careers Survey (2002) has clearly identified barriers to doctors choosing rural practice.13 Of the


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**FIGURE 1. COMPARISON OF QLD RURAL AND URBAN DIVISIONS: FULLTIME WORKLOAD EQUIVALENT AND HEADCOUNT**

<table>
<thead>
<tr>
<th>Proportion of FWE provided by % headcount - male and female - Qld rural and urban divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
</tr>
<tr>
<td>More than 1 FWE</td>
</tr>
<tr>
<td>&gt;0.5 and &lt;1.0 FWE</td>
</tr>
<tr>
<td>Less than 0.5 FWE</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>More than 1 FWE</td>
</tr>
<tr>
<td>&gt;0.5 and &lt;1.0 FWE</td>
</tr>
<tr>
<td>Less than 0.5 FWE</td>
</tr>
</tbody>
</table>

0 10 20 30 40 50 60

<table>
<thead>
<tr>
<th>Less than 0.5 FWE</th>
<th>More than 1 FWE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban % Total workload</td>
<td>8.55</td>
</tr>
<tr>
<td>Urban % Headcount</td>
<td>27.44</td>
</tr>
<tr>
<td>Rural % Total workload</td>
<td>7.86</td>
</tr>
<tr>
<td>Rural % Headcount</td>
<td>26.47</td>
</tr>
</tbody>
</table>
4,250 vocational trainees surveyed only 14% had long-term plans to work in rural and remote areas. The barriers to rural practice were:

- Long working hours including regular on-call due to a shortage of rural doctors
- Difficulty in getting leave from the practice including locum cover
- Lack of part-time or job share opportunities for women
- Cultural and lifestyle limitations in some country areas
- Professional isolation and lack of privacy in some cases
- Lack of employment opportunities for their spouse/partner including partners training with another medical college training program or pursuing a professional, city based career
- Lack of educational opportunities for their children i.e., ‘reputable’ schools and universities
- Travel costs to receive training
- Isolation from extended family and friends

In developing solutions to the rural and remote medical workforce shortage it is obvious that a new model of rural practice is needed that addresses lifestyle factors including reduced after hours commitment, further development of locum support systems, flexible employment and training opportunities, as well as engagement of local communities in seeking employment opportunities for spouses. The structural changes to rural practice would need to be promoted and marketed to medical students and young doctors in their hospital, community and rural terms in order to consider rural practice as a viable option for them and their families.

Similar themes underpin workforce shortages in the United Kingdom, Canada, United States, New Zealand and Australia. The majority of these countries recognize that they are not training sufficient doctors to meet current and future demand, and continue to heavily rely of recruiting overseas trained doctors to fill workforce shortages. The demographics of the medical workforce are changing. The workforce is ageing, with the gender balance moving toward greater female representation. There is a shift in work patterns with doctors seeking improved working conditions with shorter and more flexible working hours. In addition, doctors are struggling with the increasing medical indemnity issues, and in New Zealand and Australia, face changes in the nature of their practice with respect to the role of nurses and opportunities for advanced procedural practice.

3. UNDERSTANDING THE PROBLEM OF THE RURAL WORKFORCE SHORTAGE

3.1 MANIFESTATION OF THE PROBLEM OF THE UNDERSUPPLY OF RURAL AND REMOTE DOCTORS

The impact of the rural and remote medical workforce shortage is seen at many levels. It affects the viability of rural communities, the health status of communities, continuity of patient care, viability of the doctor, placement of doctors with little orientation to the environment they are working in, quality of care, viability of a health service and access to other health professionals.

DECLINE OF RURAL COMMUNITIES

Country towns have faced progressive closure of banks, schools and hospitals in the process of economic restructuring across Australia.

The RDAA Viable Models project identified the costs to a community of not having a local GP as:

- Poorer community health outcomes
- Job losses
- Potential loss of population and other services
- Risk of precipitating ‘cycle of decline’
- Costs of evacuation and retrieval services

HEALTH STATUS

The health status of rural Australians declines with distance from metropolitan and regional centres. The AIHW Report, Rural Health Series No.2, 2003, showed categorically that death rates in regional and remote areas are 10 per cent higher than in major cities, and 50 per cent higher in very remote areas, and these rates persist after taking into consideration inter-regional differences in age, sex, indigenous status and accounting for migration of frail elderly from rural and remote areas. Undersupply of GP services impacts on access to preventative medicine, which is important to address the effects of socio-economic and related disadvantage. The combination of practitioner shortages, remoteness from services, lack of transport and cultural inappropriate nature of some services, results in primary health care not being accessed and conditions becoming more serious before they

are treated. The AIHW report suggested that the difference in mortality rates observed in regional and remote areas compared with metropolitan areas are due to a combination of lower socio-economic status, poorer risk factors (e.g., higher rates of smoking and alcohol use), higher risk occupations contributing to injury e.g., farming, and environmental factors e.g., unsealed roads.¹⁶

HEAVY RELIANCE ON OVERSEAS TRAINED DOCTORS

Australia is a net importer of doctors, using overseas trained doctors to assist in meeting workforce shortages. At a national level in 2001, overseas trained doctors accounted for 24.5% of doctors working in rural areas and 30.8% of doctors in remote areas.¹⁷ Queensland has a greater reliance with OTDs comprising 39% of the primary care workforce in rural areas (RRMA 4 and 5), and 45% in remote areas (RRMA 6 and 7).¹⁸

The reliance on Temporary Resident Doctors (TRDs) to fill areas of workforce shortage creates a very fragile environment in rural and remote areas reflected in the relatively high mobility of the medical workforce (greater than 25% turnover in a 6 month period in RRMA 7)¹⁹ having serious implications for continuity of care and development of preventive health care, particularly impacting on remote indigenous communities where hospitals are largely staffed by TRDs or rotating junior doctors from larger hospitals.

ORIENTATION TO RURAL AND REMOTE PRACTICE

A review of the current recruitment and selection processes used to recruit medical practitioners to rural and remote areas to better reflect international human resource management may reduce the mobility of overseas trained and Australian trained doctors. An analysis of international human resource management practices by Wolfe (2001), identified selection criteria that assisted in successful international assignments.²⁰ These include:

- Cultural adaptability including cross-cultural fluidity, previous overseas experience, cultural sensitivity
- Tolerance of ambiguity
- Maturity
- Stability and ability to adapt behavioural style
- Identification of needs of the family, and involving the spouse/family in the selection process from the start
- Technical ability

However, case studies conducted by Wolfe (2001) indicated that implementation of best practice recruitment and selection processes for overseas trained medical practitioners were variable and inconsistent, and continued to focus on technical ability with little focus on personal dimensions.²¹ The current workforce shortage threatens to over-ride best practice human resource management and may contribute to mobility of both overseas trained and Australian trained doctors.

TRAINING

Workforce shortages negatively impact on GP registrars reaching their full educational potential as a result of reducing opportunities for the Registrar to observe and access their GP supervisor.²² In addition, workforce shortages affected the quality of supervision available to junior medical officers on rural terms, with often no direct medical supervision for rural relievers in Queensland.²³

MAINTENANCE OF PROCEDURAL SKILLS

NSW data shows that the size of the GP workforce practising advanced procedural skills in obstetrics and anaesthetics has fallen by about a third in the last 10 years.²⁴ One of the key contributing factors to this decline was the availability of other advanced procedural skills in the town, either by other GP proceduralists or by resident or outreach specialist services. Other factors shown to impact on the maintenance of GP procedural skills were local hospital/Area Health Service administration through its influence on facilities supplied by the hospital (physical i.e., downgrading facilities or closing theatres, and financial i.e., limiting lists, operating days), types

¹⁶ Ibid.
¹⁷ Cobbold C. (2002). Draft paper for Sixth International Medical Workforce Conference, Ottawa, April.
¹⁹ Ibid.
²¹ Ibid.
of procedures which can be performed and supply of suitably qualified nursing staff (midwives, theatre staff). Reduction in opportunities to perform procedures leads to de-skilling.

**ACCESS TO QUALITY LOCUM RELIEF**

Workforce shortages in provincial and metropolitan hospitals are impacting on workforce issues in rural and remote areas, with Queensland Health having periods of time when it has not been able to guarantee relief to solo doctors working as Medical Superintendents with Right to Private Practice. Furthermore, lack of locum relief has clearly been identified as a major professional disadvantage in the retention of doctors in rural practice. Whilst a range of programs and strategies have been implemented to provide locum relief including those provided by the Rural Workforce Agencies, private locum agencies, and in Queensland the rural relievers program, these are not adequate to meet demand with respect to:

- Size of the locum pool
- Quality of relievers

**RETENTION OF OTHER HEALTH PROFESSIONALS**

The inter-relationship between an adequate supply of, and appropriately skilled medical practitioners, nurses (both primary health care, midwives and theatre skilled) and allied health professionals is symbiotic, working as a team in both the primary health care and acute care arena. The undersupply of midwives and hospital nursing staff is negatively impacting on procedures performed in rural and remote hospitals in NSW and Queensland, with cessation or decrease in procedural workload having flow on effects in the retention of doctors, midwives and theatre nurses.

**3.2 ATTRAINTORS AND DETRACTORS TO RURAL PRACTICE AND TRIGGERS FOR LEAVING**

An evidence-based review of the literature examining the recruitment and retention of general practitioners to rural areas has clearly identified the predictors for recruitment and retention of doctors in rural practice. The key predictors for recruitment to rural practice are associated with the doctor and/or spouse having a rural background and undergraduate and postgraduate experience in rural practice. Rural doctors are usually older males, Australian born, have a partner and have older children.

The retention of doctors in rural practice, and triggers for leaving has been well described using a basic scale/balance analogy (Figure 2). This model gives a clear picture of the problems and attractions of rural practice and identifies proven factors associated with leaving or staying in rural practice, and assists in developing targeted initiatives to increase the retention of GPs in rural communities.

3.3 EMERGENT ISSUES IMPACTING ON THE RURAL MEDICAL WORKFORCE

Industry scoping has identified three emergent issues that are likely to have ramifications on the supply and retention of rural doctors in Queensland.

1. Rise in professional indemnity premiums and increased litigation. In rural areas the impact is heightened through older doctors choosing to retire rather than continue practice, general practitioners ceasing procedural work, and reduction in the complexity of rural based surgical services by visiting surgeons. These reactions to the increased uncertainty of the medico-legal environment not only reduce access to general practice and procedural services in rural areas, but may also trigger the relocation of GPs to larger towns if they can no longer undertake procedural work.

2. Safer Working Hours Directives. The provision of health care in the member countries of the European Union is now subject to the European Working Time Directive, which stipulates minimum rest periods, maximum weekly working time (48 hours inclusive of overtime), maximum periods of night work and patterns of work. In Australia, the maximum duty period for hospital-based doctors is 16 hours. The shortage of doctors in both the United Kingdom and Australia would impact on compliance with these work directives, particularly in rural and remote communities where doctors...
Figure 2.

The Balance of Retention

- Professional
  - Scope & Variety of Work
  - Independence & Autonomy
  - Comprehensive/Continuity of Care
  - Procedural/Hospital Work

- Family & Personal
  - Spouse & Family Happiness
  - (Close to family & Friends)
  - Love Rural Lifestyle
  - Safety

- Community & Resources
  - Sense of Community
  - Community Appreciation
  - Commitment to Community
  - Access to Hospital

- Triggers
  - Children entering secondary school
  - Personality Clashes
  - Hospital Closures
  - Change in Govt Policy
  - Heavy Workload
  - Professional Isolation
  - Lack of Specialist Support
  - Low Remuneration
  - Lack of Locum Relief
  - Difficulty Accessing CME

- Family & Personal
  - Lack of Quality Schooling
  - Spouse Unhappiness
  - Isolation

- Community & Resources
  - Lack of Facilities Hospitals/Schools
  - Cultural & Social: Housing
  - Loss of Privacy & Anonymity
  - Conflict with Medical Community

- Factors

- + Factors
  - Rationalise Decision to Stay
  - Stay & Wait for Last Straw
  - Wait for Last Straw Before Leaving
  - Rationalise Decision to Leave

- - Factors

- + Predictors
  - Prepared for Small-town Living
  - Well-matched to Community
  - Residency Rural Rotations
  - Well Integrated into Community
  - Highly Satisfied with Work
  - Attending a Rural Medical College
  - Participating in Selective Uni Program favouring rural background

- - Predictors
  - Sharing on-call with only 1 Doctor
  - Solo Practice
  - Professional Isolation
  - Low Reimbursement

1. Community Commitment
2. Medical Confidence
3. Compensation
(Pope et al., 1998)

The Balance

and Remote Area Nurses work in solo practice. However, lack of compliance has implications on patient care and likely to impact on indemnity for doctors in the future.

3. Regionalization of Health Services. Queensland Health is currently undertaking extensive planning to re-structure health service delivery in rural and remote areas, moving toward regionalized access to secondary and tertiary care. The restructure is seeking to strengthen the provision of services based on primary health care principles and the development of alternative strategies to provide health services in a climate of ongoing workforce shortages affecting the medical, nursing and allied health professions. However, the restructure is a high-risk plan as elements of the re-structure are identified triggers for doctors leaving rural practice.

The restructure of services in the Queensland Health Northern Zone has been developed on a catchment population basis, with little consideration to the geographical distances that patients would travel to access services. The re-structure would see in areas of less than 3,000 people, the “reshaping” of the local hospital to a primary health care centre staffed by a nurse and indigenous health worker, with medical services likely to be visiting rather than resident. Communities or regions with catchment populations of 3,000 to 10,000 would become Integrated Rural Health Services. In addition to primary health care services, the hospital facility would be maintained with inpatient care for medical patients, but minimal procedural services available.

The proposed re-structure of the Queensland Health system would drastically change the face of rural and remote medical practice, with a high risk of exacerbating the medical workforce shortage particularly in the communities with catchments of 3,000 to 20,000 people. Other solutions and options need to be canvassed in conjunction with communities, local health professionals and community service providers to address medical, nursing and allied health workforce shortages rather than speeding up the negative spiral of rural decline.

The factors contributing to the workforce shortage, and the professional and lifestyle factors that must be addressed in new models of rural general practice have been clearly identified. Let’s not trigger a worsening of the medical workforce shortage and decline of rural areas by further downgrading of health services and facilities, but rather develop new solutions building on existing infrastructure. However, for this to occur, solutions need to be developed in partnership between state and commonwealth health departments, rural workforce agencies, divisions of general practice, GPEA/GPET and ACRRM, nursing and allied health peak bodies, not one party working in isolation.

4. Recruitment and Retention Strategies Employed in the Medical and Other Professions

Within Australia a number of strategies have been implemented over the last 10 years to improve the recruitment and retention of doctors in rural areas. However, many of these strategies have not been running long enough to determine effect on retention. The range of strategies employed in the medical, nursing and teaching professions to improve recruitment and retention have focused around financial incentives, use of overseas trained professionals, funded scholarships, preferential selection of students from rural backgrounds, relief, professional support, establishment of mentoring and support networks, appropriate working environment and housing. Perhaps the strongest retention strategies will be those that support changing work patterns, and provide flexible career paths, ensuring professional and family/personal needs are met.

5. Adaptations of Existing Models to Enhance Sustainable Rural and Remote Practice

The scoping exercise has demonstrated the complexity of issues that have contributed to the current shortage of doctors in rural and remote Australia. Federal initiatives have been instigated to increase medical training places, and opportunities for undergraduate and postgraduate training in rural areas, but these are long-term solutions. The Queensland Rural Medical Support Agency must develop a range of models that can be applied in the short-term, as well as models requiring a longer lead-time.

The previous sections have informed the development of a planning matrix to identify the core components that the Queensland Rural Medical Support Agency can use to undertake further modeling to support sustainable rural and remote medical practice. Two matrices have been developed. The first identifies the core components required to support the professional factors for rural doctors. The core components include recruitment, employment conditions, practice viability and support, relief and peer support,
continuing medical education and training, and specialist and other health professional support. The second matrix identifies the core components to address family and community factors. Many of the components identified in the matrices could also be applied to other health professionals.

The y-axis of the matrices sets out the ‘level’ at which components could/should be addressed i.e., national, state, regional and community. In developing the matrices, the project team has notionally identified state responsibilities to QRMSA and Queensland Health, and regional responsibilities to networks such as the Divisions of General Practice. Responsibilities at a community level have been identified as local government, community members, and community organizations. The detailed planning matrices are described in Appendices 1 and 2.

Whilst locally tailored solutions are required, it is necessary to keep in mind that these must be developed against a backdrop of:

• Younger doctors seeking a better balance between family life and work life
• A reduction in the number of doctors choosing general practice
• Shortage of doctors impacting on the availability of junior doctors to staff hospitals and provide relief (although it is queried whether the current rural relieving model is appropriate to remote practice)
• An ageing general practice workforce, and whether alternative career paths can be developed to maintain the skills of these practitioners in rural areas
• Tensions between the standards set by the specialist colleges, costs associated with maintaining procedural professional development points, and relief required to undertake skills maintenance, and current medical indemnity premiums impacting on doctors continuing to provide procedural services
• Increasing female participation in the general practice workforce and requirements for flexible hours and work practices to meet family commitments
• Development of the concept of multidisciplinary health teams promoting integrated health care and opportunities to work smarter not harder

Furthermore, the continued reliance on TRDs for the provision of medical services in rural and remote Queensland in the short to medium term requires specific consideration in the development of support strategies as part of the overall solution.

In developing practical solutions to support rural and remote general practice in Queensland, it is obvious that one size does not fit all. The project team undertook a compilation of models currently operating in Australia, and developed adaptations to enhance sustainable service delivery.

These strategies have particularly focused around practice ownership and management, reducing the burden of after hours and mechanisms to increase the critical mass of doctors to continue to provide a range of procedural and primary care services addressing identified factors contributing to poor recruitment and retention, and sustainable practice.

The strategies were presented, critically appraised and revised at a workshop (The Townsville Workshop) with representatives from organizations providing and supporting rural and remote medical service delivery, and private rural and remote GPs. An overview of the strategies is presented in Table 1.

5.1 PRACTICE OWNERSHIP AND MANAGEMENT

STRATEGY 1. DIVISION OF GENERAL PRACTICE OPERATING A PRACTICE MANAGEMENT SERVICE OR OPERATING AS A CORPORATE GENERAL PRACTICE

This strategy builds on learning from the Virtual Amalgamation Demonstration Project32 undertaken by North and West Qld Primary Health Care (formerly the Northern Qld Rural Division of General Practice), and the Easy Entry, Gracious Exit model developed by the NSW Rural Doctors Resource Network.33 This strategy would have application to small practices (1-2 doctors), particularly in communities where it is difficult to recruit staff with appropriate management skills, where doctors are not interested, or skilled in running a small business, may not wish to make a long-term capital commitment, and seeks to reduce workload associated with running a business. The model provides continuity of the practice at times of doctor turnover.

KEY FEATURES

Under this strategy, the Division of General Practice operates a practice management service. The service includes:

• Developing practice staff position descriptions and contracts, assisting doctors in recruitment and selection of staff (Variation 1) and employs staff (under Variation 2)
• Developing/updating protocols and procedures manuals
• Preparing practices for accreditation/re-accreditation
• Establishing and maintaining a centralised practice management system to support payroll, Business Activity Statements, HIC claims, standardized account keeping and data entry
• Identify information technology requirements
• Identify and organize staff training (reception and nursing)
• Register new doctors for provider numbers
• Ensure administrative processes in place to access PIP payments and other grants available to doctors/practices
• Provision of ITIM support
• Assistance in establishment and maintenance of recall systems

**Implications for the Division of General Practice**

• Establishment of business structure that protects or minimises risk to the Division
• Additional position (practice manager) and financial and IT resources to support virtual management
• Negotiation of service agreements with individual practices and Queensland Health (as owner of practice facilities where MSRPP)

**STRAIGHT 2. COMMUNITY CONTROLLED HEALTH SERVICE**

Community Controlled Health Services usually operate in indigenous communities or centres where there is a large Aboriginal and Torres Strait Islander population. An Aboriginal Community Controlled Health Service (ACCHS) is a primary health care service initiated by local Aboriginal communities to deliver holistic and culturally appropriate care to people within their communities. Their Board members are elected from the local Aboriginal community.

Aboriginal Community Controlled Health Services are usually staffed by one or more general practitioners, nursing staff and indigenous health workers. Some services are specifically funded to provide GP services while others generate funding for GP services through Medicare. In the Aboriginal Community Controlled Health Services, provider numbers are linked to the service rather than the individual doctor, therefore HIC payments go directly to the health service. Doctors are usually employed by the service, or paid on a sessional basis.

This model is not limited to Aboriginal communities but is feasible in the mainstream.

**Key Features**

• Under the community-controlled model, an incorporated community organization owns and operates the medical/health service, with governance by a Board of Directors.
• This model would have the advantage of the Model 1 Variation 2, as the doctors would have no capital commitment. The advantage for the community is that it can direct how services are provided in the community
• Profit is directed back into the service for provision of additional services
• Community organization could contract a practice management company (Strategy 1) to manage the service
• Alternatively, the doctor could lease the practice from the community

**Implication for Community**

• Requires strong local leadership and governance, underpinned by governance training and risk assessment
• Capital commitment for ownership and equipping of facility and possibly doctor residence

5.2 After-Hours and On-Call commitments

There are several strategies that could be developed to reduce the burden of after-hours and on-call. Telephone triage models have been established in a number of locations as part of the Commonwealth’s After Hours Primary Medical Care Trials. Several of these models are currently being extended to cover larger regions e.g., GP Assist Tasmania commencing operation in November 2003. Alternatively, the development of local after hours services requires triage training of nurses in small rural hospitals, with training re-occurring while the high turnover of nurses and utilisation of agency nurses persists.

**After Hours and On-Call Strategy 1: Triage by Queensland Ambulance Service**

The Queensland Ambulance Service, Northern Region currently operates an after-hours triage system in conjunction with the Townsville Division of General Practice. In Townsville a co-operative after hours service has been established. Clients can access a doctor at a central medical practice until 10pm. Between 10pm and 7am, people calling the 1300 number for Townsville After Hours Service are diverted to the
Queensland Ambulance Service where the call is triaged using standard QAS protocols (Advanced Medical Dispatch System). If the triage determines that the call is Category 2A or above an ambulance is dispatched. However, if the call is “lower level” the caller is either dealt with directly by the communications officer using QAS protocols, or the caller is asked if they wish to speak with the GP on-call.

**KEY FEATURES**

- This model could be extended to a regional level. In the rural setting, a campaign would be undertaken to promote the 1300 number for medical attention after-hours. (After-hours can be defined as after 6pm in rural communities as the call would go through to the QAS communications centre)
- The QAS triage the call using standard protocol, if the caller requires to speak with a doctor, the QAS contacts the doctor on-call in the specified town, and arranges with the GP how they want to manage the caller
- A further line of triage could be put in place by directing the call to the local hospital, where the RN triages the call and determine whether to call the doctor. However, this would require triage training of nurses across all sites

**VARIATION**

- Between 6pm and 10pm, the calls could be diverted to the Townsville After Hours Service, where the caller would be dealt with by the doctor working in the after hours clinic. If the doctor determines the caller needs medical attention, the doctor would call the local duty GP to determine how the local GP wanted to manage the caller, and then pass this onto the caller
- After 10pm, the call would be triaged by the QAS, and callers put through to the Townsville on-call GP. The Townsville GP would give advice, or determine if the caller needed immediate medical attention. The Townsville GP would call the local duty GP to determine how the GP wanted to manage the call, and then pass this onto the caller
- This variation could operate over weekends

**Implications for QAS**

- Additional QAS communications officer on shift
- Ambulance communications centre need local knowledge across the region

**Implications for QAS and rural doctors**

- Requires mechanisms to maintain currency of on-call rosters in rural towns
- Requires mechanisms for “hand over” each morning
- Requires mechanisms for billing need to establish

**Implications for Queensland Health**

- Potential savings due to reduction in call outs and hence penalty payment to Medical Superintendents and Medical Officers

**AFTER HOURS AND ON CALL STRATEGY 2: FAMILY CARE TELEPHONE TRIAGE**

This is a telephone triage model that operates from 6pm to 8am every night, and 8am to 6pm on weekends and public holidays. The Family Care and the GP Assist Tasmania are very similar models. The Family Care triage system is staffed by doctors, whereas the Tasmanian model has a nurse undertake the initial triage and then forward to triage doctor if triage algorithm indicates.

**KEY FEATURES**

- GP phone number is switched through to triage service
- Calls are triaged/screened by registered nurse, if ambulance required dispatched locally, and notify the local duty GP. If query, call goes to triage doctor.
- Triage doctor deals with patient over the phone using clinical algorithms. If doctor determines that the caller needs to be seen by GP, triage doctor contacts local GP and triage doctor directs patient with how local GP wishes to manage problem

**Implications for Family Care (telephone triage provider) and doctors**

- Requires mechanisms to maintain currency of on-call rosters in rural towns
- Requires mechanisms for “hand over” each morning
- Requires mechanisms for billing need to establish

**AFTER HOURS AND ON CALL STRATEGY 3: NURSE TRIAGE TRAINING – SOUTH AUSTRALIAN WORKFORCE AGENCY**

The South Australian Rural Workforce Agency is currently developing a nurse triage training program to support after hours health service provision. The training program is being trialed in November and December 2003, with wider dissemination in 2004.

The objectives for the workshops are to:

- Enhance rural nurses knowledge and skills in assessment, communication and decision making for front line after hours health service provision
- Highlight the variety of ways in which after hours health services are provided by rural nurses and opportunities to develop alternate models for service provision
• Facilitate the development of sustainable frameworks for after hours health service provision through strengthened partnerships between local GPs and nurses
  • Provide resources and information to support nurses in after hours decision making

**Variation**
Triage training of nurses across sites would facilitate the development of a shared after-hours roster across a geographical cluster.

**Key Features**
• External trainers undertake triage-training workshop in community, targeting hospital nurses
• Local GPs included in training process and workshop to define systems for communication at a community level

**Implications for Queensland Health and Commonwealth**
• Increased remuneration of skilled hospital nurses to reflect greater responsibility
• GP after-hours call outs reduced, and hence cost to Medicare. Savings to Medicare could be directed to local hospital to offset higher nurses wage

**After Hours and On Call Model 4: Integration of After Hours Across Public/Private Interface**
In larger rural centres in Queensland the hospital is staffed by full-time Medical Superintendents and Medical Officers, with an on-call roster of between 1:2 or 1:4 dependent on the size of the facility and number of salaried doctors. In addition, the private GPs in the town also operate one or more after-hours roster(s). In Queensland salaried doctors are relieved by rural relievers (PGY2 or 3), and often do not have the procedural skills required to manage road trauma, obstetrics, anaesthetics. In some communities, the public system is then supported by the private GPs but there are complaints regarding the poor remuneration to provide this service.

This system could be improved by integrating after hours service provision across the private/public interface by establishing a common roster. The strengths of the model include:
• Shares roster across a greater number of doctors – reduces burn-out
• Private GPs supporting public system and remunerated appropriately
• Increased breadth of procedural skills supplied to the community
• Ensures experienced doctors covering the town (as 2nd on call) in event of inexperienced relievers

• Balances access to Medicare in rural communities which historically is below average compared with metropolitan populations

**Key Features**
• Private GPs and Fulltime QH Medical Superintendents and Medical Officers share a common After-hours/On-call Roster for a community
• Roster has 1st on call with 2nd on call – having specialist/proceduralist skills if procedural skills required/or backup required e.g., caesarean section, road trauma
• Patient elects to be a public or private patient, and if a private patient then Queensland Health staff reimbursed through Medicare.
• This model would apply to towns with populations <10,000

**Implications for Queensland Health**
• Pay a retainer to private GPs to undertake public work on the roster
• Savings derived from reduced number of call-outs for salaried doctors

**Implication for Commonwealth**
• Provision of Medicare provider number to salaried hospital doctors or to the facility to provide after hours services to private patients
• Increases access to Medicare for rural people

5.3 Increasing the “Critical Mass” of General Practitioners to Maintain Procedural Services

**Increasing Critical Mass of GPs to Maintain Procedural Services. Strategy 1: “Employing” Private GPs to Provide Hospital Services**
Currently the continued provision of procedures in rural hospitals is hindered by relievers not having procedural skills, recruitment of salaried doctors without procedural skills, and private GPs withdrawing from procedural work due to a number of factors including medical indemnity, ageing, heavy on-call commitments, loss of complementary procedural skills to the community. The key to the maintenance of procedural skills in rural and remote areas is the removal of the artificial barriers that exist between commonwealth and state funded services. A restructure of services is required in Queensland which would see the incorporation of private general practice into the provision of rural public hospital services.
**Key Features**

- Procedural skills could be maintained in a rural town by the District Health Service employing x FTE doctor(s) from a group practice (with doctors currently undertaking procedural work) to “job share” the salaried position(s), [currently operating in Chinchilla]
- Services to be provided would be negotiated but are likely to include out-patient consultations, in-hospital care, procedural work and emergency services
- The strategy would also incorporate the integrated private/public after-hours service (After Hours Strategy 4)

The advantage of this strategy to the group practice is that it provides opportunities for doctors to undertake more procedures to maintain skills and improve financial viability of practice, medical indemnity covered by Queensland Health for public work, internal relief within town therefore certainty with respect to experienced procedural doctors available when salaried doctors on leave. The strategy reduces on-call commitments of doctors as pooling private and public doctors on the roster, provides for the supervision of junior doctors by a pool of experienced doctors and hence improves patient safety. The strategy reduces the burden and cost on Queensland Health to find relievers. The strategy reduces the social dislocation for patients and their families as greater range of services provided locally. The strategy supports the retention of skilled nursing staff.

The certainty of income to the practice for the hospital position may also underpin the recruitment of an additional doctor to the group practice if demand is identified.

**Implications for Queensland Health**

- Policies established and implemented across rural and remote Health Service Districts to maintain provision of procedural services in larger service centres, requiring recruitment of doctors with appropriate procedural qualifications, and theatre nurses and midwives to support them

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5.4 Increasing the Critical Mass of GPs to provide primary care services to small communities. Strategy 1: Establishment of Satellite Practices

This strategy has application where there is a larger community with one or more group practices and a solo doctor community, or no doctor community within 1-1.5 hours drive. There are a number of variations on this model.

**Key Features**

- Group practice in a larger community, or a consortium of doctors from nearby larger community(s) provide a regular GP service to small community.
- Frequency of service is dependent on size of community.
- Ideally between 1 and 3 doctors service the small community to provide some choice and possibly gender choice
- Doctors work from private rooms in the small community, which are rented from owner
- Appointment booking centralized to large town practice
- Branch practice computer networked to main office for patient records, billings
- Branch practice is a dispensing practice, therefore small community has access to pharmacy
- Local reception and nursing staff employed on part-time basis
- Close liaison with resident Queensland Health nurse (if there is one)
• After-hours directed to local health clinic (if there is one) or telephone advice from group practice
  Or
• Regional after-hours service (see QAS model)

Variation 1
• Shire employs local reception and nursing staff
• Group practice pays Shire a percentage of fees to meet support staff wages and rent/maintenance of rooms

Variation 2
• Nurse works in branch practice and is virtually managed/clinically governed by doctors from group practice.
• Doctors have provider number for branch practice.
  Medicare revised so that practice item number offsets nurse wages

Implications for group practice
• Capacity to provide regular service to smaller community
• Capacity to clinically govern practice nurse at satellite practice

Implication for local government
• Supporting local provision of medical services by employment of practice staff, with wages reimbursed on percentage basis from group practice
• May also consider provision of facility to group practice at nominal rent

Implication for Commonwealth
• Practice nurse item number or practice item number to underpin service provision by nurse at branch practice (remote from GP)

Increasing the Critical Mass of GPs to provide primary care services to small communities. Strategy 2: Rotation of doctors to small communities

A variation to this model would be the rotation of doctors into the communities so that the position is shared between 2 or 3 doctors. This is similar to the Royal Flying Doctor Service Kowanyama model, where 2 doctors service the community, on a fortnightly rotation.
### Table 1. Overview of Strategies to Enhance Sustainable Rural and Remote Practice

<table>
<thead>
<tr>
<th>Issue</th>
<th>Option</th>
<th>Adaption</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practice Ownership and Management</strong></td>
<td>Division of General Practice operating a practice management service or operating as a corporate General Practice</td>
<td>Division of General Practice contracts practice management services to individual practices and provides financial and human resource management services.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Division of General Practice owns the practice, employs practice staff, GP contracted to provide services on a percentage basis. Practice building rented by Division.</td>
</tr>
<tr>
<td></td>
<td>Community Controlled Health Service</td>
<td>Adaptation of Aboriginal community controlled. Incorporated community organization owns and operates the medical/health service, governed by a Board of Directors. Opportunity to contract practice management services</td>
</tr>
<tr>
<td><strong>Reduction of After-Hours and On-call Commitment</strong></td>
<td>Telephone Triage operated by Qld Ambulance Service</td>
<td>Regional telephone triage operated by QAS as first point of contact to assess calls and direct to appropriate service provider. Rural doctors subscribe to triage service, with callers directed to QAS, hospital nurse or doctor dependent on protocol</td>
</tr>
<tr>
<td></td>
<td>Family Care Telephone Triage</td>
<td>Regional telephone triage that is staffed by either doctors or nurses, and uses clinical algorithms.</td>
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<tr>
<td></td>
<td>Nurse triage training</td>
<td>Hospital nurses trained in assessment, communication and decision-making for front line after hours service provision</td>
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<tr>
<td></td>
<td>Integrated after-hours across public/private interface</td>
<td>Private GPs and salaried hospital doctors share common on-call roster, with private GPs paid a retainer by Qld Health to provide services, and hospital doctors able to access Medicare to provide services to private patients</td>
</tr>
<tr>
<td><strong>Increased critical mass of doctors to provide procedural services</strong></td>
<td>Health District “employing” local GPs to provide hospital and procedural services</td>
<td>Health District “employs” local private GPs to provide hospital and procedural services by cashing out one or more hospital positions, enabling development of internal relief structures and removal of reliance on inexperienced junior relieving doctors, increased opportunities for private GPs to continue procedural services, availability of public procedural services not dependent on recruitment of salaried doctors with necessary skills.</td>
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<td></td>
<td>Targeted recruitment of salaried doctors with procedural skills</td>
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<tr>
<td><strong>Increasing critical mass of doctors to provide primary care to small communities</strong></td>
<td>Establishment of satellite practice</td>
<td>Group practice in larger town provides service to small community (no doctor) on regular outreach basis working from a small branch practice staffed by a practice nurse, with clinical governance from group practice. Alternatively, solo doctor in small community, incorporated into overall practice structure with relief provided from group practice</td>
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<tr>
<td></td>
<td>Rotation of doctors to small remote community</td>
<td>Medical officer position shared between 2 or more doctors working from a regional location and providing services to community on a fortnightly basis</td>
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</tbody>
</table>
6. NEW MODELS

A key outcome of the Townsville Workshop was the identification that the sustainable delivery of primary medical services in rural and remote areas is dependent on the development of a multidisciplinary health team underpinned by the flexibility to work across the public and private interface, and across state and commonwealth boundaries. Communities were identified as central to service planning so that services matched community need (in terms of morbidity, size, remoteness, and cultural diversity), and that models of service delivery must be “sustainable for the practitioners.

Clearly new models of health care service delivery are required to stem the decline of rural communities and to address the poorer health status of those people residing in rural and remote Australia. The following principles to underpin new models were derived from the Townsville Workshop and provide a basis to evaluate existing and new models of primary care service delivery.

6.1 PRINCIPLES TO UNDERPIN NEW MODELS

Principle 1: Minimum level of services standards are provided to communities benchmarked on specific size, geographical location and remoteness from other health services ensuring equity of access, timely and effective models of service delivery. Benchmark minimums include access to emergency treatment, drug requirements, equipment requirements and number and range of trained health professionals either resident or visiting.

Principle 2: Longer term sustainability of health services is underpinned by operating within a coordinated multidisciplinary health team to increase the critical mass of health professionals within a community and region, reducing individual workload, yet extending the range and continuity of services provided. The team includes doctors; nurses – Remote Area Nurses, hospital based, community and practice-based; physician assistants; allied health professionals; indigenous health workers; ambulance officers; and administrative support.

Principle 3: Community participation in service planning, and ongoing review and monitoring of service provision, to ensure accountability of service provision meeting community need

Principle 4: Services match need (morbidity) and geographical remoteness of the community. The relevant to the size and geographical remoteness of the community.

Principle 5: Quality of service provision is maintained through appointment of appropriately qualified and experienced health professionals, supported to undertake vocational and professional development to meet recognized standards, working in accredited health service facilities adequately equipped for the range of services provided supported by good information technology and management systems.

Principle 6: Culturally appropriate multidisciplinary service provision. All health professionals participate in cultural awareness training, receive orientation to remote and indigenous environments, and linked to local community mentors.

Principle 7: Agencies employing or contracting health professionals structure remuneration packages to incorporate retention strategies that address good quality accommodation, access to vocational and professional development, financially rewarding structure and sustainable working conditions.

6.2.1 COMMUNITY MEDICINE MODEL

This is a new model based on the premise that commonwealth and state funds for a region are pooled and managed by a local body e.g., “Regional Primary Health Care Authority”.

KEY FEATURES

- The Regional Primary Health Care Authority is governed by a Board or management committee, with representation from community organizations, local government, state and commonwealth health services, and Divisions of General Practice
- Regional Primary Health Care Authority owns or rents, and equips the Community Health Centre. The premises meet accreditation standards and has sufficient space to accommodate resident and visiting services, and training
- The Regional Primary Health Care Authority provides or contracts in practice management services
- The community health centre provides a range of services including medical, after-hours, allied health, practice nurse, indigenous health worker, visiting or resident specialist services, and has facilities to promote access to health information for patients/clients. Depending on the size of the community, allied health services are resident or visiting.
- The “community health centre” undertakes virtual management of branch practices staffed by a resident practice nurse.
• The GP(s) and practice nurse go into hospital to arrange post-discharge care, therefore In-Reach into hospital instead of outreach from hospital.
• GP provides clinical governance to practice nurse (which is a fundamental difference to the nurse practitioner model where this clinical governance is not in place).
• Doctor sees acute patients, new patients or chronic care patients when change in treatment plan required, whilst practice nurse undertakes routine follow-ups, providing GP with greater capacity to see more serious cases, and also reducing workload.
• GP works on a fee for service basis (remunerated on percentage of fees generated).
• The Regional Primary Health Care Authority liaises with local Rural Health Training Units, Universities, University Departments of Rural Health, and GP Training Consortia to provide facilities for training health professionals and GP Registrars.

**LINKAGE WITH OTHER PROGRAMS AND STRATEGIES**
- Practice Nurse Initiative
- Division of General Practice program
- More Allied Health Services Program
- Regional Health Services
- Similar concept to Primary Health Care Access Program

**RESOURCES REQUIRED TO IMPLEMENT MODEL**
- Commonwealth and state funds pooled to regional authority which acts as the fundholder/auspice that can purchase, allocate or broker services with these funds.
- Medicare is revised so that the doctor provider number covers virtual branch practices.
- A practice item number is developed to cover nurses seeing patients (relieving burden on GP for routine follow-ups).
- Practice and premises ownership could be a mix of public, private and corporate.

**RISKS TO BE MANAGED**
- Regional fund holding but local authority not able to provide for all health needs therefore requires community input into prioritising services to meet local need.
- Accommodation.
- Car and expenses for travel between communities.
- Indemnity for public procedural work paid for by state health(?)

• Medicare revision required to support payment of nurses and operation of branch practices in small communities
• Commitment of agencies to the concept and implementation of fund pooling.

6.2.2 INCREASING CRITICAL MASS OF GPS. GP REGISTRAR WORKING ACROSS A GEOGRAPHICAL CLUSTER

Throughout rural and remote Queensland there are numerous solo doctor communities of a size that requires one and a “bit” doctors, or just under one. There are opportunities for looking at specific geographical clusters in order to develop models that would increase the number of doctors servicing a cluster, spread the on-call load, and establish mechanisms for “internal” relief.

**KEY FEATURES**
- Advanced term GP registrar is attached to the designated training practice (one of the cluster), and is the community in which the Registrar resides.
- Roster developed with GP registrar working across the two or three communities, and participating in the after-hours and week-end on-call roster across the cluster.
- Regular relief is provided within the cluster i.e., internal relief.
- Roster developed in such a way that the GP Registrar has sufficient time at base location to establish social linkages.
- Training pathway must be developed for the Registrar. The GP registrar could enter the Remote Vocational Training Program. Alternatively a University Department of Rural Health and regional training consortia, could run a similar program with local mentors. The RACGP and ACRRM have an agreement that this program is equivalent to the RACGP Rural Stream, and recognized towards the FACRRM.

Within this model there is potential for promoting procedural work in the cluster communities. This could occur by the Registrar covering one town while the resident doctor travelled to a second town to do a list with the resident doctor; alternatively the registrar could cover a town when the flying surgeon visits, with the resident doctor undertaking anaesthetics.

**RESOURCES REQUIRED TO IMPLEMENT MODEL**
- Salary for GP registrar.
- Accommodation.
- Car and expenses for travel between communities.
The development of Ambulance Officers as part of the local health team could be developed and implemented immediately. It requires negotiation between the Queensland Ambulance Service, Queensland Health, Divisions of General Practice and local GPs to identify opportunities at a state, regional and local level for ambulance officers to play a broader role in health service delivery, health promotion and education in conjunction with local doctors, nurses (hospital, community and practice-based), indigenous health workers, allied health and community service providers.

The range of opportunities include:
- As an additional service provider working within local hospitals, providing addition skills and increase opportunities to practice skills
- Working within the general practice setting and adding to capacity of the practice
- Working with community health nurses and indigenous health workers in chronic disease management, health promotion, mental health literacy
- Working as therapy assistants under supervision/direction of allied health professionals

**RESOURCES REQUIRED TO IMPLEMENT MODEL**
- This model could be cost neutral where ambulance officers are already located in communities.
- The main resource implication is whether remuneration would be altered to reflect variation to current position descriptions.

**RISKS TO BE MANAGED**
- Industrial opposition from within the ambulance, nursing and medical professions to changing role of ambulance officers (or other professions)
- Managing community perception that Ambulance Officers’ role dedicated to emergency response

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6.2.3 INCREASING EFFECTIVENESS OF EXISTING RESOURCES IN SMALL COMMUNITIES

**INCREASING EFFECTIVENESS OF EXISTING RESOURCES I: AMBULANCE OFFICERS PART OF HEALTH TEAM**

A recent study undertaken by the Queensland Ambulance Service indicates that many ambulance stations in small rural and remote communities have a very low workload when averaged out across a period of time. In some locations ambulance call outs are measured in days per call-out, with active service time averaging less than 20 minutes per day. Consequently ambulance officers are an under-utilised resource in these communities and alternative activities could be developed that would incorporate ambulance officers into the multidisciplinary health team.

Discussions have been held between the Queensland Ambulance Service and the North West Qld Allied Health Service to pilot the use of ambulance officers as therapy assistants to provide follow-up to clients under the direction of the visiting allied health professionals. Other opportunities exist to include ambulance officers in delivery of primary health care in rural and remote hospitals or general practices.

**LINKAGES TO OTHER PROGRAMS AND STRATEGIES**
- It is important that a training pathway is established for the GP registrar, and this may require negotiating some flexibility in training with the RACGP and ACRRM. Who should drive this process? Is it a practice principal at one of the cluster practices, or is it a role for the Rural Workforce Agency or Division?
- Linkages with local governments across cluster to negotiate financial inputs to support accommodation and vehicle for the GP registrar

**RISKS TO BE MANAGED**
- Adequate time for training and direct supervision i.e., on-site
- Manage rostering to ensure perceived equity to support by GP Registrar
- GP registrar valued as contributor to practices/communities and not “exploited”
- Adequate remuneration to support GP registrar

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model designed to complement physician training. They are trained as a primary care generalist to work within primary health care teams, with emphasis placed on health promotion, risk reduction, health maintenance and preventive care.35

The application of the physician assistant model to ambulance officers would require consideration of the skills and qualifications of ambulance officers in the development of the curriculum. Opportunity also exists to stream enrolled nurses, indigenous health workers and registered nurses into this career pathway, with the physician assistant credentialed to undertake specific services based on previous qualifications and levels of competency.

Decentralized training for the didactic components of the physician assistants curriculum has been established by some programs in the United States, resulting in comparable academic outcomes to those programs delivered centrally. This has facilitated the retention of physician assistants in underserviced areas.36 The University Departments of Rural Health and their associated “parent” university are ideally placed to develop the curriculum and provide training for local health professionals to retain these services in rural and remote areas.

RESOURCES REQUIRED TO IMPLEMENT MODEL

The physician assistant model requires:

- Development of curriculum and accreditation of course
- Ambulance Officers and other health professionals going off-line for periods of training, therefore requiring backfill
- General practitioners to act as preceptors and take on training and supervisory role
- Establishment of a salary scale for physician assistants, and restructure of ambulance officer’s and other health professionals’ salary scale to acknowledge higher level of skills and different role
- Legislation to recognize and define role and responsibility of the profession

RISKS TO BE MANAGED

- Industrial opposition from within the ambulance, nursing and medical professions to changing role of ambulance officers (or other professions)
- Managing community perception that Ambulance Officers’ role dedicated to emergency response
- Defining locations or ‘areas of need’ in which the physician assistant model would operate

INCREASING EFFECTIVENESS OF EXISTING RESOURCES 3: MAINTENANCE OF SPECIALIST NURSING SKILLS IN RURAL COMMUNITIES

The maintenance of obstetric services in rural communities is threatened by the reliable supply of midwives. Strategies need to be developed to maintain the supply of midwives, and ensure that they are undertaking sufficient deliveries to maintain skills. Access to specialist services such as palliative care, diabetes education, stoma therapy, continence is difficult to obtain in rural communities. Recently Divisions of General Practice have commenced employment, and upskilling of nurses under the More Allied Health Services Program to undertake Diabetes Education or work as Diabetes Resource Nurses. Some Divisions have also been successful in obtaining HACC funding to develop continence nurse positions. This model could be extended and would see nurses within a community or region up skilled across a range of specialities dependent on the health priorities of the community/region.

KEY FEATURES

- With respect to midwifery, midwives work across the community/hospital interface. Midwives are “assigned” to a pregnant woman for the duration of the pregnancy i.e., ante-natal, delivery and post-natal care, in a shared-care arrangement with the local doctor.
- Dependent on size of community and number of deliveries the role of the midwife may also be extended to women’s health nurse, child and maternal nurse. Two nurses work across the combined roles (allows on-call rotation)
- Community midwife has capacity to undertake home visits (and properties) during ante natal and post-natal period
- Whilst a predominantly community-based position, the nurse attends the delivery and “specials” the mother and baby post partum
- Nurses trained in other specialities would also work across the community and hospital interface e.g., palliative care, diabetes education, stoma therapy, continence

35 www.med.und.nodak.edu/depts/fammed/PA/Description.htm
Grape, which is a regional service centre with a base hospital offering resident and visiting specialist services. Tomato is located a further 100 km east of Apple i.e., 250 km from Grape.

Restructuring current service delivery

Restructuring health services is contentious in any community but particularly rural and remote communities that have witnessed the decline in banking, schools and other services. Utilising the principle of community participation, and building on the community medicine model, a local health committee is formed in both Apple and Tomato. The committees include representatives from local government, the school, aged care providers, nominated community members, local doctor, Director of Nursing, the local Division of General Practice and the District Health Service.

Each health committee reviews the issues associated with health service delivery in its respective community. Issues common to both communities include:

- The known intention of the current doctors to relocate in 12-18 months time
- Low occupancy of the hospitals but regular utilization of the emergency department
- Heavy reliance on agency nurses placing heavy burden on local hospital budget
- Need to travel to Grape for obstetric services and other procedural services
- Whilst the District Health Service provides relieving doctors to Tomato and Apple, these are usually junior doctors, and there has been occasions when the local doctors have had to cancel their leave because a reliever was unavailable
- Poor coordination of allied health services
- Difficult to access child health and post natal care

Resources required to implement model

Funding for nurses – possible sources include practice item numbers (if employed through general practice), cashing out some hospital nursing positions i.e., midwives, HACC funding (continence and palliative care)

Review of Medicare to extend to practice item number or further extend practice nurse item number indicated in Medicare Plus

Funding to train nurses in identified specialist areas, and backfill to enable release for training

Risks to be managed

Employment of nurses through hospital obstructs flexibility required for these positions and therefore alternative employers should be considered e.g., Divisions of General Practice, community organizations, local general practices

Requires recruitment of nurses with specific set of skills, alternatively train local nurses (which is likely to be more sustainable model)

6.3 Development of New Models: Application of Planning Matrix and Principles to the Real World

This section will apply the principles and new models derived from the Townsville Workshop to rural and remote locations in Queensland to describe a sustainable model of service delivery utilising existing resources. Three models are presented. One seeks to improve the sustainability of primary care services in small remote communities. The second model seeks to improve the sustainability of delivering procedural services in a rural area, and the third seeks to support the provision of primary health care services in very remote areas.

6.3.1 Small Remote Communities

Currently in Queensland there are a number of communities that have fragile health services. An example is Apple, the service centre of the Apple Shire. Another such community is Tomato, the service centre of the Tomato Shire. A brief description of the communities and health services available are provided in Table 2. Apple is located 1.5 hours drive east of Grape, which is a regional service centre with a base hospital offering resident and visiting specialist services. Tomato is located a further 100 km east of Apple i.e., 250 km from Grape.
TABLE 2. DESCRIPTION OF APPLE AND TOMATO COMMUNITIES AND HEALTH SERVICES

<table>
<thead>
<tr>
<th>Current</th>
<th>Apple</th>
<th>Tomato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3,500 (25% indigenous)</td>
<td>1,200 (6% indigenous)</td>
</tr>
<tr>
<td>Hospital</td>
<td>22 acute beds 2 aged care 1 respite</td>
<td>8 acute beds 2 aged care</td>
</tr>
<tr>
<td>Hospital occupancy</td>
<td>45% (predominantly short stay)</td>
<td>Low, usually 1 patient at a time. Management of patients locally hindered by access to pathology services, solo doctor</td>
</tr>
<tr>
<td>Pathology</td>
<td>2 collections/day</td>
<td>1 collection/day</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>Local private Dispensing practice</td>
<td></td>
</tr>
<tr>
<td>Doctor</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Hospital Nurses</td>
<td>1 DON 3 CNC 9 RN 6 EN Use of agency nurses</td>
<td>1 DON 3.5 RNs 4 EN Heavy reliance on agency nurses i.e., ~65% from agency</td>
</tr>
<tr>
<td>Aged care worker</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Practice nurse</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ambulance Officer</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Community health nurse</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Indigenous health worker</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialist nurse Services (some nurses may have multiple skills)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

and the general practice facility was closed during that period. The current doctor had to re-establish the practice, recruit and train a receptionist, but had no experience of running a business or general practice. The local Division assisted him to establish the business processes.

- Community doesn’t want to lose emergency service

ISSUES SPECIFIC TO APPLE

- Whilst Apple has a theatre and nursing staff to support surgery, only minor operations are performed as the town is relatively close to Grape, and in the current medico-legal environment, surgeons will no longer work in the small rural hospital.

- It is difficult to obtain an appointment to see a doctor as the doctor is usually booked out a week ahead (GP: population ratio is 1:1,750)

The communities have some hard decisions to make. They recognize that the current model of medical service delivery is very taxing on the doctors, and contributes to the high turnover of doctors, but the community expects a reliable medical and after-hours service equitable with other communities and taxpayers. Apple and Tomato are fortunate in that they are communities with strong leaders. The leaders got together to sort out whether there was synergy in tackling these problems together. The health committees met and over a period of time came up with a model for consideration.

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THE FRUITY MODEL

TOMATO FOLLOWING RE-STRUCTURE

- Tomato retains a full-time doctor that provides general practice and emergency services, and manages the resident aged care patients
- Nursing positions restructured so that 1 RN position is upgraded to a Remote Area Nurse, second RN position maintained as a practice nurse
- Aged care patients cared for by 2 EN positions supported by an aged care worker, with nursing care provided by RAN and practice nurse and ENs
- Ambulance officer position is upgraded to a physician assistant position, with the officer providing an emergency response as well as assisting the local doctor and Remote Area Nurse in the general practice clinic
- When the doctor has weekends off or on short-term leave, Tomato is covered by the Remote Area Nurse and/or Physician Assistant, with clinical governance provided by doctors in Apple.
- Doctor operates the private practice from the decommissioned Tomato hospital - Community health centre
- Community health centre has several holding beds for short stays and retrievals. Short in-patient stays are still possible with coverage by the two nurses and ENs servicing the aged care patients, (which is similar to the range of services/type of patients that Tomato previously managed)
- Private general practice managed by the corporate arm of the local Division of General Practice
- Visiting health services continue to operate from the health centre, and case conference with the local doctor and Remote Area Nurse at each visit

APPLE FOLLOWING RE-STRUCTURE

- Third doctor recruited with the assistance of the QRMSA
- Practice is accredited as a training practice. A GP registrar is recruited and follows the Remote Vocational Training Scheme pathway, supervised by a doctor located in Grape
- The 3 doctors and GP registrar operate a private general practice and service the hospital
- General practice facility extended to make provision for an additional 2 consulting rooms, one for the registrar and another room for visiting health professionals. The cost of the extension to the practice is met by the local shire through a short-term rate levy, as the expansion in the facility is recognized as a mechanism to improve the sustainability of medical service
- General practice is initially leased by the corporate arm of local Division
- Division takes over employment of practice staff and management of the practice, and doctors pay the Division a service fee. In the longer term ownership of the practice is likely to become the responsibility of the community
- A large working mine is located within the Apple shire. The Apple practice provides a weekly clinic to the Mine site accommodation, and is contracted to undertake workplace medicals
- The mine builds an additional two homes in Apple for the additional doctor and GP registrar, and receives nominal rent.
- The number of beds at the Apple hospital is reduced from 25 to 12 (including 2 aged care and 1 respite bed)
- The reduction in bed numbers reduces the number of nurses required on shift from 3 to 2, with the aged care patients cared for by an aged care worker during the day. Occupancy rates now run close to 100% and continue to be short stay patients as was the case prior to the re-structure
- On-call is shared across the cluster with the Ambulance Officer/Physician Assistant, Remote Area Nurse and Tomato doctor included in the roster (1 in 7 first on-call). Within Tomato, if a patient is required to be seen there is a second on-call of 1:3 shared between the RAN, doctor and Ambulance Officer/Physician Assistant. A second on-call system also operates in Apple.

Across the cluster the reliance on agency nurses to fill hospital positions is reduced under this model. However, the net number of nursing positions should not be reduced, but rather positions revised to establish specialist services to meet local need i.e., the nurses are up skilled to provide a range of specialist services. Midwifery positions become community-based and provide ante-natal and post-natal, child health and well-women’s services across the cluster. Other specialist services may include diabetes education, palliative care and continence. These positions would link with other visiting services and operate as functional teams with the allied health professionals and indigenous health worker. A small domiciliary nursing service is established. The revision of the
nursing positions to community-based positions attracts local nurses back into the workforce and with some upskilling take up several of the specialist nursing positions, which are not shift positions. The opportunities for part-time work and job sharing in the specialist nursing roles are attractive to these nurses.

**Strengths of the Model**

- Net increase in the number of doctors servicing the cluster (GP:population ratio 1:960)
- Reduction in on-call commitments for doctors and Tomato ambulance officer across the cluster
- Upgrading the DON position at Tomato to a Remote Area Nurse, and development of physician assistant position reduces on-call commitments to solo doctor making position more tenable
- Internal relief provided across the cluster, removing the reliance on rural relievers and associated costs for Queensland Health
- Reduced reliance on agency nurses and hence savings to Queensland Health
- Improved efficiency of the hospitals, but still able to manage emergencies, retrievals and short-stay patients
- Nursing positions redefined to community-based positions to meet the cluster health needs and delivered efficiently using the concept of functional teams

**Table 3. Comparison of services across models**

<table>
<thead>
<tr>
<th></th>
<th>Current Model</th>
<th>New Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Apple</td>
<td>Tomato</td>
</tr>
<tr>
<td>Population</td>
<td>3,500</td>
<td>1,200</td>
</tr>
<tr>
<td>Hospital</td>
<td>22 acute beds</td>
<td>8 acute beds</td>
</tr>
<tr>
<td></td>
<td>2 aged care</td>
<td>2 aged care</td>
</tr>
<tr>
<td></td>
<td>1 respite</td>
<td></td>
</tr>
<tr>
<td>Pathology</td>
<td>2 collections/day</td>
<td>1 collection/day</td>
</tr>
<tr>
<td>Doctor</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Hospital Nurses</td>
<td>1 DON</td>
<td>1 DON</td>
</tr>
<tr>
<td></td>
<td>3 CNC</td>
<td>3.5 RNs</td>
</tr>
<tr>
<td></td>
<td>9 RNs</td>
<td>4 ENs</td>
</tr>
<tr>
<td></td>
<td>6 EN</td>
<td></td>
</tr>
<tr>
<td>Aged care worker</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Practice nurse</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ambulance Officer</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Community health nurse</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Indigenous health worker</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Specialist nurse Services (some nurses may have multiple skills)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
• Administrative burden of running general practice removed from doctors
• Doctors do not have to make capital commitment to practice

**Resources Required**

• The only additional position is the doctor and GP registrar positions. These positions could be part funded on a measure and share basis, in that Queensland Health will not have the expense of providing rural relievers to the cluster (salary, transport and accommodation costs). The population of Apple shire should sustain a third doctor
• The Remote Area Nurse position and Ambulance officer/physician assistant positions will be remunerated at a higher rate in line with additional responsibility, however, there should be a net saving in nursing costs by reduction in agency fees and penalty rates
• Vehicles will be required to support community-based positions
• Training costs to upskill Ambulance officer; and specialist nurses
• Accommodation for additional doctor and GP registrar

**6.3.3 Funding and Auspicing the Model**

Several options could be developed to fund this model. Option 1 is a variation on the existing model, whilst option 2 fits with the community medicine model.

**Option 1**

Cashing out MSRPP and MORPP positions at Apple, with Queensland Health employing the Apple practice to provide outpatient, inpatient, emergency services and on-call to the hospital in a similar arrangement to the Chinchillas model. Queensland Health continues to operate the Apple hospital and employ the nurses – both hospital and community based. In Tomato, Queensland Health continues to contract the doctor to provide emergency services, manage short stays and aged care patients under the existing retainer and package. The doctor continues to run the general practice as a mixed billing practice. The RAN and EN positions are retained by QH, with the practice nurse position employed by the Division. Part of the funding for the practice nurse position is derived from Queensland Health to cover aged care component and part-funded through general practice.

**Option 2**

This option is in essence similar to the Primary Health Care Access Program, with the concept that state and commonwealth funds for primary health care services are cashed out, and controlled by a regional health council.

**6.3.4 Maintaining Procedural Services**

Rural and remote Queensland is in jeopardy of losing access to procedural services through planned regionalization of service delivery, and doctors choosing to place a greater emphasis on lifestyle and family commitments. This scenario describes the situation in some communities in Queensland and puts forward a model for sustainable service delivery. Mango is the service centre of the Mango Shire, with a population of 9,000. Mango is located 200 km south of the large regional city of Pineapple, which has a tertiary hospital facility. Guava is a further 50km south of Mango and has a population of 800 people. A summary of the current health services is shown in Table 3. Reliability of access to public procedural services in Mango is impeded by recruitment of Medical Officer without obstetric qualifications.

**Restructuring Current Service Delivery**

The shire of Mango and the township of Guava value the services provided by their local doctors. However, many of the members of the communities are acutely aware of the fragility of the services.

**Issues Specific to Mango**

• Local private doctors considering ceasing procedural medicine because of marginal income of obstetrics relevant to increasing indemnity and number of private deliveries
• Access to public obstetric services unreliable due to recruitment of salaried doctors who may or may not have procedural skills
• Concern over ‘competency’ of relievers to manage emergencies such as road trauma and premature deliveries
• Long waiting times for appointments with private GPs
• Concern that local doctors will “burn-out” and move to easier location

**Issues Specific to Guava**

• Local doctor constantly on-call and showing signs of burn-out
• Large older population with chronic health problems
• Public transport expensive and difficult for pensioners to access medical services in Mango
Access to allied health services limited to diabetes education in Guava even though population has high prevalence of diabetes and cardiovascular disease

The Guava practice is financially marginal because of the high number of pensioners and health care card holders in the town

Queensland Ambulance Service concerned that the local officer is largely under-utilized and considering the continuation of the position in Guava

Members of the local communities, shire representatives, Queensland Ambulance Service, and medical profession met with the local Division of General Practice and District Health Service to look for a solution to the impending problem of maintenance of procedural services and primary care services in the Mango and Guava communities.

**THE TROPICAL SOLUTION**

The Tropical Solution had implications for the Mango hospital, Mango general practice and Guava practice.

- District Health Service “employs” Mango general practice to fill Medical Officer position
- Integrated after hours and on-call roster established with Medical Superintendent (1 in 5 on-call)
- Medicare Provider Number issued to Mango hospital under Medicare Plus Mark II, for after hours services provided by Medical Superintendent to private patients
- Mango GPs providing public procedural services
- Mango practice recruits 5th GP – leading to re-location of Guava GP to Mango
- Guava practice maintained as branch practice from Mango serviced by GP 2 days/week
- Guava ambulance officer position ungraded to Physician Assistant with clinical governance provided from Mango practice
- Guava practice nurse position increased to 1 FTE
- Guava after hours calls are directed to Mango hospital, triaged by nurse and managed by local doctor on-call. If medical assessment required liaise with physician assistant in Guava
- Mango practice becomes training practice and GP Registrar placement
- Practice nurse hours increased at Mango to 2 FTE, and restructured resulting in 0.8 FTE general nursing duties, 0.7 FTE chronic disease clinic, and 0.5 FTE mental health clinic
- Introduction of Medicare Plus Mark II (inclusive of practice nurse item number) enabled employment of nurses to enhance and extend GP services
- Division of General Practice extended the More Allied Health Services Program to promote upskilling of Guava practice nurse in diabetes education, and sessional contracting of podiatrist and dietitian to service Guava on quarterly basis

**STRENGTHS OF THE MODEL**

- Net increase in doctors servicing the region
- Reduction in on-call commitments for doctors, reduction from 1st on-call to second on-call for ambulance officer/physician assistant in Guava
- Internal relief within the Mango hospital, removing the reliance on rural relievers and associated costs for Queensland Health
- Increased opportunity for Mango GPs to maintain procedural skills
- Increased in-patient management

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**TABLE 4. DESCRIPTION OF MANGO AND GUAVA COMMUNITIES AND EXISTING HEALTH SERVICES**

<table>
<thead>
<tr>
<th></th>
<th>Current Mango</th>
<th>Guava</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>9,000</td>
<td>800 (older pop., chronic illness)</td>
</tr>
<tr>
<td>Hospital doctors</td>
<td>2; 1 in 2 on-call</td>
<td>0</td>
</tr>
<tr>
<td>GPs</td>
<td>4; 1 in 4 on-call</td>
<td>1; Constant on-call</td>
</tr>
<tr>
<td>Registrar</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Practice Nurses</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Ambulance Officers</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diabetes Educator</td>
<td>1 day/fortnight</td>
<td>1 day/month</td>
</tr>
</tbody>
</table>

---

**Queensland Rural Medical Support Agency**
Aboriginal Community Controlled Health services) to enable the Medical Superintendent to bill private patients after-hours, as part of the integrated after-hours service

• Revision of Medicare Plus to establish a practice nurse or practice item number for rural and remote areas allowing practice nurses to provide specific services that do not require the patient to see the GP, and recognize the higher level skill of the nurse

• Increased remuneration for Physician Assistant, and given that these positions are extending the role of general practitioners, Medicare item numbers could apply. Alternatively, the Commonwealth recognizes the increased remuneration for these positions and funds QAS directly to support the position of physician assistant in rural and remote areas

6.3.5 PRIMARY HEALTH CARE SITES

Health service provision in very small remote communities in Queensland is usually focused around a nurse-run clinic with visiting general practice type medical services provided by the Royal Flying Doctor Service or a GP residing some distance away. The health clinics can be auspiced and managed by a Queensland Health District, or another agency.

Over the last 2-3 years, Queensland has seen the withdrawal of some of these agencies from the management of remote clinics, resulting in communities seeking other organizations

<table>
<thead>
<tr>
<th>Table 5. Comparison of Services Across Models</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old Model</strong></td>
</tr>
<tr>
<td><strong>Mango</strong></td>
</tr>
<tr>
<td>Population</td>
</tr>
<tr>
<td>Hospital doctors</td>
</tr>
<tr>
<td>GPs</td>
</tr>
<tr>
<td>Registrar</td>
</tr>
<tr>
<td>Practice Nurses</td>
</tr>
<tr>
<td>Ambulance Officers</td>
</tr>
<tr>
<td>Physician Assistant</td>
</tr>
</tbody>
</table>

• Ongoing provision of GP services to Guava that was under threat of losing service
• More efficient use of QAS resource
• Expanded role of practice nurses to reduce workload on GPs and free up time to manage acute presentations

**Resources Required**

• The only additional position is the GP registrar and given the population of the region, this should be feasible under fee for service. In addition, the guaranteed income from the cashed out Medical Officer position will subsidize cost of the GP registrar
• The Ambulance Officer/physician assistant position will be remunerated at a higher rate in line with additional responsibility
• Training costs to up skill ambulance officer to physician assistant
• Accommodation for GP registrar
• Additional practice nurse time in both Guava and Mango

**The key changes to current funding requires:**

• Cashing out of the Medical Officer position by Queensland Health to “employ” the Mango practice to provide hospital services
• Access to Medicare for the Mango Hospital facility (under similar conditions to Medicare access for Aboriginal Community Controlled Health services) to enable the Medical Superintendent to bill private patients after-hours, as part of the integrated after-hours service
• Revision of Medicare Plus to establish a practice nurse or practice item number for rural and remote areas allowing practice nurses to provide specific services that do not require the patient to see the GP, and recognize the higher level skill of the nurse
• Increased remuneration for Physician Assistant, and given that these positions are extending the role of general practitioners, Medicare item numbers could apply. Alternatively, the Commonwealth recognizes the increased remuneration for these positions and funds QAS directly to support the position of physician assistant in rural and remote areas
to provide this remote nursing service. Desert is one such shire that must look for a new agency to support the primary health care clinics that operate in two communities within its jurisdiction.

The Desert Shire is in outback Queensland. Within the Desert Shire there are two communities separated by 200km of dirt road. Community A has a population of 160 and Community B has a population of 120. Indigenous Australians represent 40% of the Shire’s population. These communities experience a large influx of tourists during the winter months. Each community has a primary health care clinic staffed by a remote area nurse. Fortnightly medical services are provided by the RFDS. Other visiting services include the Well Women’s Health Clinic, and monthly allied health services provided through a regional health services program managed by the local Division of General Practice. The local District Health Service funds an aboriginal health worker, working across the entire shire.

Whilst the residents of the Desert Shire appreciated the work of the nurses running the clinics, and the agency providing the service, they had a number of concerns. These included:

- Recognition of the load placed on the remote area nurse and difficulty the service had in providing back fill for annual leave, study leave and allocated time off, and cost associated with using agency nurses for back fill
- Frequent turnover of nursing staff because of the difficulty of obtaining relief and long periods of on-call
- The inflexibility of the agency in not allowing the nurses to provide clinics on stations where there were significant population groups

**WHAT MODELS COULD BE DEVELOPED TO IMPROVE THE VIABILITY OF PRIMARY CARE SERVICES IN THIS SHIRE?**

The Desert Shire is a progressive organization and debated whether to take over the auspice and management of its own primary health care service. The arguments underpinning this debate were that the Shire was the organization elected by the local communities to manage services, it was an organization that had the processes and systems in place to manage large sums of money and specific projects and programs, it was the largest local employer, with human resource management systems in place. In addition the Shire already provided in kind support to the health services through maintenance of buildings and infrastructure.

The advantages to the Shire of auspicing and managing the health services included:

- Opportunity to direct models of service delivery to meet local need
- Guarantee that funds raised locally would be directed back into the service
- Opportunity to promote integration of resident nursing services with visiting health and community services, broadening the focus of service provision to encompass primary health care
- Opportunity to develop strategies to support the recruitment and retention of nursing staff

Systems for clinical governance and professional and peer support need to be considered.

**THE DESERT SOLUTION**

Under the Desert Solution the Shire became the fund holder for state and commonwealth allocations to the local region. The Shire boosted funds to the health service through a major annual fundraising activity, and service fee to non-residents of the shire using the clinics (mainly the large number of tourists visiting the Shire during the winter). These funds offset the cost of the third nursing position. The three nursing positions covered the Desert Shire. One position provided clinic services at Community A, one position provided clinic services at Community B, and the third position was a relieving position for the clinic nurses, as well as providing health promotion and screening clinics at the larger stations on a scheduled basis.

The Shire recognized the need for clinical governance and professional support for the remote area nurses. Therefore, the Shire called for Expressions of Interest from agencies with experience in providing primary health care services in remote areas to supply nursing services based on the model developed by the Shire in conjunction with its residents. The contracting in of services offered the remote area nurses the professional support and governance required, but ensured that the Shire had direct input into how services were delivered.

The Desert Shire took over full responsibility for the maintenance of the clinic facilities, and accommodation for the three nursing positions. The Shire sought assistance from the local Division of General Practice to assess the facilities and identify the necessary work required so that the facilities and
systems met accreditation standards. The Shire saw the opportunities of exposing medical, nursing and allied health students to remote practice as a mechanism for increasing the pool of people ready to work in rural and remote health for a period of time. Therefore it established links with the regional University Department of Rural Health and became a site for student placements.

With the assistance of the Division’s pharmacist, the Shire established a small commercial pharmacy at the clinic. The pharmacist assisted the nursing clinics establish the systems to support pharmacy dispensing, and provided regular upskilling of the remote area nurses in pharmacy supply and pharmacy counseling through monthly visits to the Shire in conjunction with the visiting allied health service. Queensland Health continued to provide drugs to the pharmacy as part of it support to health service provision in the Desert Shire. In addition to providing visiting pharmacy services in the two communities, the pharmacist also undertook property visits with the third nurse several times a year to undertake home medication reviews of elderly people residing on properties, and support some of the health promotion activities conducted by the nurse.

7. CONCLUSION

This paper has sought to understand why rural and remote Australia, and Queensland in particular, is experiencing a medical workforce shortage, and how this shortage impacts on communities and health professionals, in order to develop solutions to support sustainable rural practice.

The literature review undertaken in this study indicates that the trigger for the rural crisis was a result of the convergence of federal government policies in the early 1990s that sought to address the oversupply of general practitioners in metropolitan areas through restricting medical student intake, reducing GP training places, applying provider number restrictions to overseas trained doctors, and limiting the issue of provider numbers to doctors participating in or completed a vocational training program. Whilst some of these measures sought to promote uptake of rural practice by overseas trained doctors, and there has been a net increase in doctors working in rural areas by 11%, it appears to have created a fragile system with high mobility of doctors.

The current factors contributing to the rural medical workforce shortage, are largely social and demographic i.e., increased representation of women in the medical workforce, ageing general practice workforce, and changing work patterns of younger doctors seeking to work shorter hours, continue to exacerbate the shortage. Current government policies to increase the number of medical student places may not result in a proportional increase in services provided when consideration is given to recent HIC data that shows that in Queensland 58% of urban general practitioners work less than 0.5 fulltime workload equivalent. [Comparable rural data shows that 68% of doctors billing HIC work less than 0.5 fulltime workload equivalent but this data is confounded by locums and rural relievers providing short term relief in rural areas].

Evidence that undergraduate rural training, postgraduate training and medical school entry criteria favouring rural students is associated with an increased likelihood of being a rural GP underpins recent university policies for preferential selection of students with a rural background as part of a long-term strategy to address the rural medical workforce shortage. However, this is obviously only part of the solution as there continues to be a need to re-think service delivery models that address the factors of why doctors leave rural practice.

Medicine is not the only health profession experiencing difficulties recruiting and retaining a workforce in rural and remote areas. Nursing, allied health and ambulance services experience similar issues. Currently Queensland Health is seeking to restructure service delivery with emphasis on regionalization of acute services particularly for secondary and tertiary care, with an emphasis on primary health care in smaller communities. The drivers behind this restructure is the increasing technology and treatments that can be made available in tertiary facilities, and shorter lengths of stay; a greater focus on chronic disease prevention and management; sustainable service delivery underpinned by quality, safety, access, efficiency and effectiveness; and workforce supply; and

ageing population. The driver that appears to be missing is equity. A risk with the current Queensland Health Northern Zone Clinical Services Planning Framework is that the proposed mix of services available in rural and remote areas is based on population of the catchment areas and not on community need i.e., morbidity, geographical isolation. Whilst it is recognized that the current models in rural and remote areas continue to focus around hospital based services which have low occupancy but high running costs, there needs to be greater consideration to benchmarks for minimum services that promote equity for people living in rural and remote communities, and also reduce the risk of further rural decline.

This project has identified adaptations to existing models of rural medical service delivery that would improve the sustainability of medical practice. These adaptations have particularly focused around practice management, after hours and mechanisms to increase the critical mass of doctors to continue to provide a range of procedural and primary care services. The adaptations have sought to address identified factors contributing to poor recruitment and retention, and sustainable practice i.e., unwillingness of younger doctors to buy into practices, reduced burden of managing practices, continuity of a practice during periods of doctor turnover, after hours burden, and maintaining opportunities for procedural medicine. The implementation of these adaptations requires removing the artificial barriers between state and commonwealth funded services including allowing for integrated after hours rosters between private general practitioners and hospital doctors, a further review of Medicare rebates to promote greater use of practice nurses for work that will reduce general practitioner workload and increase capacity to manage acute and serious presentations.

The realities facing rural communities and those organizations seeking to support rural and remote health service delivery is that new models are required that make better use of existing resources i.e., human, financial and infrastructure. Clearly it is the residents of rural and remote communities who are affected by changes in the mix of services and mechanisms of service delivery. It is also the communities that are being increasingly called upon to support state and commonwealth initiatives to support health service delivery through provision of local infrastructure. Therefore, communities must be central to and supported in decision-making regarding health service provision. This is occurring under the primary health care access program and should be extended across Queensland.

This paper has developed a number of new models that are presented for consideration. As demonstrated in this document, one model will not fit all. Perhaps that is one of the contributing factors to why Queensland and other states continue to face ongoing problems in health service delivery in rural and remote areas. Health service delivery in rural and remote Australia is constrained by the contractual agreements between the Commonwealth and States leading to inflexibilities that do not easily allow local solutions to local problems.

A table outlining suggested improvements to support sustainable health service delivery in rural and remote Queensland is presented in Chapter 8.

40 Minutes of meeting between Queensland Health Outcomes Unit and QRMSA, October 2003.
8. **Suggested Improvements to Support Sustainable Health Service Delivery in Rural and Remote Queensland.**

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<tr>
<th>Suggested Improvement</th>
<th>Responsibility Level</th>
<th>Agencies</th>
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<tbody>
<tr>
<td>Communities are central to decision making regarding the type and mechanism of health service delivery to meet local need and priorities. Communities are supported to make these decisions by drawing on the expertise available from agencies including local Divisions of General Practice, Rural Workforce Agency and district health services.</td>
<td>Community</td>
<td>Divisions of General Practice Queensland Rural Medical Support Agency District Health Services</td>
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<tr>
<td>The artificial boundaries created by state and federal health funding are removed to promote more efficient, effective and sustainable models of health service delivery in rural and remote areas. Medicare is reviewed to remunerate hospital nurses to triage and support private general practitioners in the provision of after hours care in rural and remote areas. Health professionals that support and extend the role of the general practitioner are appropriately remunerated through Medicare by specific item numbers or practice item numbers in rural and remote areas.</td>
<td>National/ State</td>
<td>Commonwealth Department of Health and Ageing Queensland Health</td>
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<tr>
<td>Restructuring of health services funded and delivered by either state or commonwealth governments are underpinned by community participation, equity of access, timeliness and effectiveness, longer-term sustainability and quality.</td>
<td>National/ State/ Regional</td>
<td>Commonwealth Dept of Health and Ageing District Health Services Divisions of General Practice</td>
</tr>
<tr>
<td>As Australia will continue to rely on overseas trained doctors for primary care service delivery in rural and remote areas in the foreseeable future, sponsoring organizations will implement international best practice recruiting processes, undertake skills assessment and seek to match the doctor and family to a community. In addition, the length of bonded service in remote communities is inversely proportional to the isolation of the community.</td>
<td>National/ State</td>
<td>Commonwealth dept of Health and Ageing Queensland Health Queensland Rural Medical Support Agency</td>
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<tr>
<td>Target the marketing of rural general practice to medical students, and PGY1 and PGY2 doctors, promoting new models that address workload and lifestyle factors, and multidisciplinary health service delivery.</td>
<td>State/ Regional</td>
<td>Queensland Rural Medical Support Agency Divisions of General Practice</td>
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<tr>
<td>Develop mechanisms or tools to assess the aptitude of Australian and overseas trained doctors for rural and remote practice, and cross-cultural adaptability of the doctor and family.</td>
<td>State</td>
<td>Queensland Rural Medical Support Agency</td>
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<td>Increase the size, and improve quality of the locum pool by investigating strategies such as regional-based locums, on-site supervision of rural relievers, and increased collaboration between Queensland Health and the QRMSA on provision of locum services.</td>
<td>State</td>
<td>Queensland Rural Medical Support Agency Queensland Health</td>
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<td>Suggested Improvement</td>
<td>Responsibility Level</td>
<td>Agencies</td>
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<tr>
<td>Universities continue the policy of preferential selection of students from rural backgrounds and strengthen rural undergraduate and post-graduate training opportunities linking closely with other health professionals to foster and facilitate the concept of functional multidisciplinary health teams. Provision of financial support to rural practices to meet the infrastructure and time requirements to undertake teaching and training of GP registrars and medical students.</td>
<td>National</td>
<td>Commonwealth Department of Health and Ageing Universities GPET ACRRM</td>
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<tr>
<td>Implementation of initiatives to promote the recruitment and retention of a multidisciplinary health team inclusive of nurses and allied health professionals, drawing on evidence provided by Fitzgerald et al. 2000, Director General of Health 2000, Stanley-Davies and Battye 2004. Using a strategy derived from the teaching profession, development of professional exchange programs for experienced doctors, nurses and allied health professionals from urban areas to rural and remote locations to provide services for a period of time with guarantee of placement back to original position.</td>
<td>State/ Regional</td>
<td>Queensland Health Health Service Districts Divisions of General Practice Other Non-government Organizations</td>
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<td>Development and implementation of alternative practitioner models such as physician assistant to extend the care provided by a general practitioner/ primary care doctor. The development of this new profession in Australia requires resources to develop curriculum and pilot programs, and introduction of legislation to describe the role and responsibility of the profession.</td>
<td>National/ State</td>
<td>Commonwealth Department of Health and Ageing Universities</td>
</tr>
<tr>
<td>As a matter of urgency, the Commonwealth commissions rigorous evaluation of current rural and remote recruitment and retention strategies to determine where there is evidence of effectiveness and those strategies that require re-direction or diversion of resources.</td>
<td>National</td>
<td>Commonwealth Department of Health and Ageing</td>
</tr>
<tr>
<td>Commonwealth and State governments trial and evaluate a pilot of regional fund pooling of primary care services as described in this paper.</td>
<td>National/ State</td>
<td>Commonwealth Department of Health and Ageing Queensland Health</td>
</tr>
</tbody>
</table>

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41 Stanley-Davies, P., & Battye, K. (2004). The Division with the vision: Development of the North West Qld Allied Health Service by North and West Qld Primary Health Care. Evaluation Stage 1. Townsville: NWQPHC.

<table>
<thead>
<tr>
<th>Level</th>
<th>Recruitment</th>
<th>Employment conditions</th>
<th>Practice Viability/ support</th>
<th>Relief/Peer Support</th>
<th>CME/Training</th>
<th>Specialist and other health professional support</th>
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<tr>
<td>National</td>
<td>Overseas trained doctors: Adopt international recruitment best practice processes (see Wolfe 2001) Clarify/standardise methodology for placement (OTD) &amp; residency status Australian doctors: Selection into training program – consideration of aptitude for rural practice Incentives for rural practice developed – OTDs e.g., residency provider number; Aust HECs debt, specialist training place, professional exchange programs Strategic marketing of rural practice to medical students, PGY1-3 Minimum level of GP and procedural services benchmarked (and maintained) against community with consideration of morbidity, catchment population and remoteness</td>
<td>TRDs – removal of ambiguities e.g., immigration, credit arrangements, school fees, medicare access, clarified and promoted Remuneration package includes: • Relocation expenses • Leave isolation • Housing subsidy • Communications subsidy • I paid activity/yr childcare/nanny subsidy • Mentoring • Maternity/paternity leave • Assistance with indemnity premium OTDs and bonded scholarship holders duration of bonded stay • Procedural skills maintenance incentive After hours, reconfigure PIP to pay doctor</td>
<td>Electronic health records/HealthConnect supports: shared care shared on-call streamline retrieval processes Recognition of role of practice nurse, interpretation of EPC items Practice nurse item number or practice item number Rural item numbers Professional indemnity reforms Remuneration for red tape Capitalisation (practice establishment and GPs retiring)</td>
<td>Increased flexibility of Rural Locum Relief program e.g., regional locum backfill in provincial area Skills assessment of locums including TRDs and JHOs Cultural awareness training – indigenous and rural/remote</td>
<td>Learning plans/contracts in conjunction with ACCRM, RACGP e.g., procedural skills, fellowships Assessment of new docs/TRDs/OTDs but need to train assessors and have them accredited CME/training modules include Oz medical system, HIC, Workcover etc Language assessment/communication skills Flexibility of RACGP/ACCRM program relevant to local/regional level Supporting attainment of FRACGP (OTD/TRD) Supporting indigenous health</td>
<td>Training program exposure to rural and remote Specialist as training provider Alternative practitioners and clinical governance models to assist in meeting worldwide medical shortage Alternative practice models – curriculum development Course accreditation</td>
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<td>State</td>
<td>Medical Board registration</td>
<td>State/regional management of after hours/on-call e.g., QAS triage to manage after hours</td>
<td>Infrastructure – access to pathology, radiology</td>
<td>Maintenance of adequate locum pool</td>
<td>Procedural skills training/placements offered at regional level</td>
<td>Telerehealth as a viable means of specialist support</td>
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<td></td>
<td>Mandatory cultural awareness training (indigenous and rural)</td>
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<td>Affordability</td>
<td>Train the trainer: • Facilitators of training sessions • GP supervisors</td>
<td>Centralised electronic bookings for specialists and visiting services</td>
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<td></td>
<td>Skills assessment</td>
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<td>PGY2 and 3 – 6 months locum in general practice in supervised environment</td>
<td>Time allocation for CME/PD, for participants and presenters</td>
<td>MEOs/discipline training resource for JHOs in larger hospitals</td>
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<td>Skills match to community</td>
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<td>Individual learning personalised and localised</td>
<td>Individual learning personal and localised</td>
<td>Joint training opportunities for medical students, nursing and allied health professions to build concept of multidisciplinary teams</td>
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<td>Skills development to meet community need</td>
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<td>Linkage to mentors</td>
<td>Linkage to mentors</td>
<td>Legislation to recognize and define roles of alternative practitioners e.g., physician assistants, nurse practitioners</td>
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<td>Recruitment philosophy – flexibility</td>
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<td>Use Medical Education Officers to support and advocate for PGY1,2 and 3 to ensure balance between training and service delivery, and supervision during relieving terms (PGY 2 and 3)</td>
<td>Use Medical Education Officers to support and advocate for PGY1,2 and 3 to ensure balance between training and service delivery, and supervision during relieving terms (PGY 2 and 3)</td>
<td>Development of awards and salary scales for alternative practitioners</td>
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<td>Supervised training</td>
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<td>Development of Medical preceptor program to support alternative practitioner models</td>
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<td>Regional</td>
<td>Orientation to regional health services including primary, specialist, retrieval</td>
<td>Job sharing</td>
<td>Training practice staff – nurses, IHWs, reception (AAPM training)</td>
<td>Peer Support e.g., “Chats over the Back Fence” teleconference network</td>
<td>Implement train the trainer “packaged” mobile modules from procedural workshops/ courses with blocks conducted for doctors, nurses, allied health professionals, ambulance officers i.e., health teams</td>
<td>MSOAP, MAHS, RHS – coordinate health teams locally</td>
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<td>Participation in selection of health professionals</td>
<td>Flexible work e.g., registrars working across practices</td>
<td>ITIM support</td>
<td>Regional locum/regular locum consistency for patients</td>
<td>Include RFDS, QAS in primary health teams</td>
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<td>Development of community and regional profiles for new doctors and health professionals</td>
<td>Rostering on-call across geographical sites</td>
<td>Support development of crisis plan for doctor/practices</td>
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<td>Role of AHPs promoted</td>
<td>Promote role of AHPs</td>
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<td></td>
<td></td>
<td>Regional after-hours triage and response service</td>
<td>Virtual practice management canvassed</td>
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<td>Work with communities to identify health priorities and local needs</td>
<td>Work with communities to identify health priorities and local needs</td>
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<td></td>
<td></td>
<td>Training nurses to triage</td>
<td>Division as corporate employer of practice staff</td>
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<td>Division assists doctors in negotiation of contracts with state health services</td>
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<td>Models have capacity for: Walk in/walk out Clustering Branch practices</td>
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<td>Community</td>
<td>Participation in selection</td>
<td>Shared on-call between doctor and ambos</td>
<td>Ownership of building/equipment (partner with Division)</td>
<td>Offset transport/housing costs for locums</td>
<td>Flexible learning options PRVTS</td>
<td>Identification of local health priorities and health professional mix to meet need</td>
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<td>On-site interviews</td>
<td>On-call co-operatives within community</td>
<td>Accommodation</td>
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<td>Training aligned with individual training needs</td>
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<td>Orientation</td>
<td>Local ownership</td>
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<td>Education incorporated into working hours</td>
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<td>Cultural awareness – indigenous and rural, contextualised to local community</td>
<td>Local shire as employer</td>
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<td>Use QAS as training resource for docs, nurses, health teams</td>
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<td>Housing/ accommodation</td>
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<td>Community education/ managing expectations on doctor</td>
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<td>Level</td>
<td>Recruitment</td>
<td>Viability of community/community resources</td>
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| National   | Family part of recruitment process Implement international best practice Human resource management (including Oz families as rural/remote different culture) Include in on-site interviews Link with National Family networks Promote equal power relationship (partner not the handbag) i.e., 2 professionals with skills/attributes for community Cultural awareness training (indigenous and rural) for partner and children | Lobby state education to improve quality of schooling in rural and remote, lobby with ICPA re:  
- Preparing teachers for rural and remote placements  
- Cultural awareness  
- Videoconference links to city schools to broaden curriculum choices  
- Accelerated learning opportunities for identified students  
Doctor and spouse health  
Develop strategies to support youth of professional service providers in rural and remote communities |
| State      | Identify employment opportunities for partners across communities  
Skill match partner to community  
Career counselling/guidance for partner  
Identify training opportunities for partner (by distance)  
Advocacy |                                                                                                                                 |
| Regional   | Identify local employment opportunities  
Strategies to support work from home opportunities including IT/internet support  
IT training  
Link with local and existing networks including Rural Women's Network, ICPA, QRMFN  
Community buddy | Regional community capacity building – linkages with DPI, Outback revival etc. |
| Community  | Community hosts regular meet and greet for new people coming to town  
Cross cultural settlement education – for communities with overseas trained doctor and for doctor and family | Local community development to improve resources within communities including: Developing family day care/child care facility, nanny opportunities, emergency childcare rosters  
Employment of tutors for secondary school education/to support distance education for local children |