

Quality Improvement Report

Building a sustainable workforce in a rural and remote health service: A comprehensive and innovative Rural Generalist training approach

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Abstract

Background: Historically it has been challenging to recruit and retain an appropriately trained medical workforce to care for rural and remote Australians. This paper describes the Queensland North West Hospital and Health Service (NWHHS) workforce redesign, developing education strategies and pathways to practice, thereby improving service provision, recruitment and retention of staff.

Concept: The Mount Isa-based Medical Education Unit sought accreditation for a Rural Generalist (RG) training pathway from Internship to Fellowship with the Australian College of Rural and Remote Medicine (ACRRM) and the Regional Training Provider (RTP). This approach enhanced the James Cook University (JCU) undergraduate pathway for rurally committed students while improving recruitment and retention of RMOs/Registrars.

Achievements: Accreditation was achieved through collaboration with training providers, accreditation agencies, ACRRM and a local general practice. The whole pathway from Internship to Fellowship is offered with the RG Intern intake as a primary allocation site beginning in 2016. Comprehensive supervision and excellent clinical exposure provide an interesting and rewarding experience – for staff at all levels.

Results: Since 2013 RMO locum rates have been <1%. Registrars on the ACRRM pathway and Interns

increased from 0 to 7 positions each in 2015, with similar achievements in SMO staffing. Three RMOs expressed interest in a Registrar position,

Conclusions: Appropriate governance is needed to develop and advertise the program. This includes the NWHHS, the RG Pathway and JCU.

KEY WORDS: rural health services delivery, rural services planning, rural workforce development, rural workforce issues, medical workforce planning.

Background

The rural and remote medical workforce shortage has been well-described but no simple solutions found.^{1,2} The rural and remote primary medical workforce continues to struggle to meet community needs.³ With 34% of all Australians living outside major cities but only 23% of medical specialists and 27% of general practitioners (GP)s practising there,⁴ population per GP ranges from 1034 in capital cities to 2000 in Mount Isa.

Fly in/Fly out arrangements were suggested as an interim solution to address remote medical workforce shortages.⁵ However, this approach reveals problems (rostering difficulties, providing continuous care, identification with work place, community, patients, etc.).

There is consensus that appropriate, high quality training needs to be provided in and for rural areas.⁶ Considerable federal investment, following political attention and advocacy from rural medical groups and communities, now focuses on rural medical education.

A 2003 report noted the future workforce impact of rural placements for medical students was unclear.⁷ The James Cook University (JCU) medical program, established in 2000 to address regional workforce needs, had a strong rural focus including rural Internships for final year students.⁸ Using a specific selection

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Dedication and innovative training concepts based on local training opportunities provide a solution for building a sustainable workforce even without external funding.

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process with ambitious targets for regional and rural background student numbers,⁹ more JCU medical graduates than others planned to work in rural towns or regional centers.⁹ Their patterns of practice location in Internship and beyond were different to other programs' graduates. Non-metropolitan origin JCU MBBS graduates predominantly worked in RA 2–5 locations.¹⁰ One conclusion was that enrolling students with rural and remote backgrounds into medical programs may address workforce shortages in remote areas.

Providing vocational training was recognised as central for successful recruitment and retention of medical workforce for remote locations.¹¹ Commencing in 2000, the Remote Vocational Training Scheme has additional funding to train GPs in remote locations.¹² Two years post-fellowship, 47% of their graduates still worked in Rural, Remote and Metropolitan Area classification (RRMA) 4 and above, six still in their training location, three of them in RRMA 7.¹³

The Queensland Health Rural Generalist Pathway¹⁴ includes an attractive award system and provides suitable career pathways to postgraduate rural and remote practice for graduates from Queensland's medical schools. Since 2006 it has been offering a supported career pathway for junior doctors to train in rural and remote medicine, aiming to join evidence with policy to achieve credentialing, and professional and industrial recognition. The pathway grew from initially 30 trainees in 2006 to 282 in 2015, including 56 Fellows.

Implications for the north-west Queensland region

Increasing supply did not translate into an increase in medical workforce for the remote NWHHS. While JCU MBBS graduates from 2005 onwards showed different patterns of practice to other graduates, only 3% of graduate-years were actually in remote/very remote locations,¹⁰ with only one graduate working in Mount Isa pre-2010.

Mount Isa Hospital and the NWHHS serve approximately 50 000 permanent and temporary residents in remote and very remote locations. In 2010 their workforce showed chronic staff shortages at all levels, over-reliance on International Medical Graduates (IMGs), unsustainable rosters with huge amounts of overtime and on-call days. Industrial changes including new fatigue management strategies and workforce expectations made this unsustainable. Existing educational workforce programs and workforce over supply in metropolitan areas did not result in increasing numbers of an appropriately trained remote medical workforce.

While there are reasons why certain health professionals work in remote locations,¹⁵ major obstacles for successful recruitment and retention are perceived lack of collegial support, onerous on call arrangements and lack of appropriate (vocational) postgraduate training.^{16,17}

In 2010 the Mount Isa Hospital and the NWHHS was characterised by major medical workforce shortages at all levels. A Director of Clinical Training (DCT) had been appointed, but with no dedicated staffing component or role description. His role was supported by dedicated administration staff, but there was no Medical Education Officer (MEO), mandatory for teaching hospitals. There was no accreditation for intern training, accreditation for Australian General Practice Training (AGPT) was lost some years before. One general practice in Mount Isa and one in Cloncurry, 120 km east of Mt Isa, held ACCRRM accreditation for 2 years of Primary Rural and Remote Training (PRRT), and regularly hosted Registrars.

Issues identified

The DCT identified the need for establishing a Medical Education Unit (MEU) including a MEO with dedication for the task, clinical knowledge and experience, knowledge in rostering and workforce planning.

The following were identified as important factors for recruiting and retaining staff at all levels:

1. training accreditation for Intern training, prevocational core clinical training and vocational training
2. convenient rosters including flexibility and tailoring of shift patterns to the individual needs of both junior and senior medical staff
3. a support model for every individual medical employee including a mix of nurturing and apprenticeship strategies for mentoring¹⁵
4. appropriate delegation/authority and independence for the MEU team for advertising and recruiting appropriate staff, negotiating collaboration and support structures with other services including JCU, the RG Pathway team and local/regional GPs.

The DCT and MEO's vision was:

Building on positive experience in North Queensland with a collaborative training model¹⁸ and gaining support from all specialties, Mount Isa Hospital and the NWHHS will provide rural generalist training from Internship to Fellowship – without depending on external funding.

A strategic plan was developed with the following key points:

1. *Full Intern accreditation as a primary allocation site* to allow Mt Isa to take interns as part of

developing a ‘home grown’ workforce. Starting with accreditation of a non-compulsory term as a secondment site with interns on rotation from the tertiary referral hospital (The Townsville Hospital), then accreditation of all compulsory terms and one non-compulsory term (Obstetrics & Gynaecology) for five Interns on primary allocation.

2. *Core Clinical Training* (CCT) accreditation at PGY 2 level for Paediatrics and ICU/Anaesthetics to offer all 6 CCT terms for RG/ACRRM training
3. *Accreditation for Primary Rural and Remote Training* (PRRT). Trainees could complete their 24 months of PRRT in the region combining 12–18 months at Mount Isa Hospital with 6–12 months at a general practice in Cloncurry or Mt Isa.
4. *Advanced Skills Training* (AST) accreditation, achieved/maintained for the following disciplines: anaesthetics (JCCA), obstetrics (DRANZCOG adv.), emergency medicine, remote medicine, Aboriginal Health (including training under remote supervision), allowing for both pre- and post-Fellowship training.

Significant milestones included:

1. Intern accreditation:
 - 2010 Country Practice Term on secondment
 - 2012 O&G
 - 2013 Medicine, Surgery and ED as compulsory terms
 - 2015 Paediatrics
2. Core Clinical Training accreditation:
 - 2013 in ICU/Anaesthetics and Paediatrics
3. Primary Rural and Remote Training accreditation:
 - Achieved in 2011 for the ED for a maximum of 18 months training. In cooperation with practices in Cloncurry and Mount Isa, trainees could complete 24 months PRRT locally.
4. 12 months Advanced Skills Training accreditation:
 - maintained for Obstetrics and Anaesthetics
 - 2011 Emergency Medicine
 - 2013 Remote Medicine and Aboriginal Health with a combined Mount Isa Hospital and Mornington Island rotation (including remote supervision).

Outcomes

These initiatives resulted in substantial workforce improvements from 2010 to 2013, maintained in 2014/2015. Mt Isa Hospital staffing in 2010 included 35% of RMOs being locums compared to 0.7% in 2015. Eighty five percent of permanent RMOs and 67% of ED SMOs were IMGs in 2010, compared to 17% and 14% 5 years later. Thirty-three percent of SMO positions were filled with Locum staff, which equated to 4.5 FTE in 2010 compared with 15% in

2014, and 12% in 2015. Whilst 35% of RMO workforce consisted of Locums in 2010, this figure was negligible in 2013, 2014, and 2015 (Table 1).

These achievements were fostered with an 8-on, 6-off roster and multiple roster changes per day for the convenience of all staff members. Also key were attendance at conferences, discussion with potential future staff members in person and by phone/Internet, advertising campaigns and close cooperation with and support from multiple sites, especially the RG team.

Tables 2 and 3 demonstrate the growth in intern and registrar numbers at Mt Isa Hospital over the past years, further stabilising the workforce, increasing retention and staff satisfaction, reducing reliance on locums and IMGs. Four of the 2014 Interns applied for a JHO position for 2015, and three commenced work.

TABLE 1: *Medical workforce data Mount Isa Hospital Emergency Department (IMG SMOs defined as SMOs from overseas with no Australian Fellowship)*

	2010 (%)	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)
Permanent RMOs	65	84	80	99	99.7	99.3
% of these IMGs	85	53	39	23	16	17
Locum RMOs	35	16	20	1	0.3	0.7
Permanent SMOs	67	80	63	80	89	88
% of these IMGs	80	55	53	60	44	14
Locum SMOs	33	20	39	20	11	12

TABLE 2: *Registrars in training in Mt Isa Hospital*

2010	No Registrars in training
2013	Four TMT/ACRRM Registrars
2014	Five TMT/ACRRM Registrars
2015	Seven TMT/ACRRM Registrars two working on remote supervision

TABLE 3: *Interns in Mt Isa Hospital*

2010	No interns
2011	2 Country Practice Terms filled
2013	6 Country Practice Terms filled
2014	All 35 terms filled with Interns on secondment
2015	33 terms filled with Interns on secondment
2016	Primary allocation site on Rural Generalist Pathway (approved by OPMO); 5 interns/25 terms; 10 terms on secondment

Conclusion

'There are no set answers to the problem of attraction and retention'.¹⁹ Solutions require continuously thriving, dedicated staff with:

1. appropriate delegation
2. a vision
3. a concept, continuously modified according to changing needs
4. appropriate, flexible governance – both at local and state level – are a key prerequisite for successful recruitment and retention.

Maintaining dialogue with key stakeholders – colleges, universities, providers of postgraduate education, jurisdictions, and other accreditation and training institutions is necessary. They must match local needs with numbers and qualification of potential applicants – in Australia and overseas. And they should provide local coordination and leadership, seeking synergies with all service providers to facilitate excellent training opportunities.

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