

PERSONAL VIEW

Guiding principles for successful innovation in regional medical education development

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Submitted: 18 November 2005; **Resubmitted:** 21 December 2005; **Published:** 24 January 2006

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Rural and Remote Health 6: 516. (Online), 2006

Available from: <http://rrh.deakin.edu.au>

ABSTRACT

This is an era of extraordinary expansion in medical education in both the developed and developing world. This article reflects on the author's experience in implementing new regional medical education programs, and distils ten principles to guide successful innovation once funding for such development has been achieved.

Key words: regional medical education.

Background

This is an era of extraordinary expansion in medical education in both the developed and developing world. As the population increases in number and average age, new diseases are identified, and new technologies emerge to prolong both quality and quantity of life, there are substantial unmet needs for more trained health professionals. Amidst this expansion, some new training

schools are being established in regional or rural areas¹, usually for several reasons. One reason is that as traditional urban facilities become more crowded with students, further expansion is constrained unless more distant facilities are used as a source of patient-based learning. Another reason is that the drive to open new schools may come from regional and rural communities, which have an imperative to address local health needs and recruit an adequate local health workforce. Such local initiatives often attract national



political and financial support, but retain their local focus and interest. Yet another reason is a desire to increase access to health professional education to people living in regional and rural communities. At least in Australia, most medical students have come from bigger cities¹.

New medical schools can benefit from strong local, regional and national support, developing a strong sense of identity and purpose. Many aspire to be different, and commence with innovative, even inspiring, new approaches to student selection and curriculum implementation. However, sustaining this new purpose can be difficult once the curriculum is implemented, graduates are in the workforce, and the place of the school is accepted. Many new schools become less different as time passes, and innovation can be lost amidst a desire to be compared with other medical schools, usually in larger centres.

This article reflects on the author's experience in implementing new regional medical education programs, and distils ten principles to guide successful innovation once funding for such development has been achieved.

Ten principles

1. Ensure strong community, professional and political support to develop a relevant and achievable mission

Opportunities for new educational developments are often linked to local needs in both health status and healthcare workforce. Support can be enhanced through engaging all stakeholders, particularly local stakeholders, so that the development has a clear and supported purpose that will be resourced and nurtured. This should be reflected in a clear and widely supported mission statement that will guide the development of the educational program.

2. Develop the most appropriate structure to deliver the mission

Two models have been successful, at least in Australia, and a third model has been described². The first is the regional development that is managed from a large, urban institution – the rural clinical school model. The second is the truly regional/rural medical school, where management is much closer to program delivery. The third model is a composite of the other two, where urban and rural programs are both prominent and well supported. This is also less common.

The key issue is the locus of control. Ideally, management, student selection, curriculum and assessment, faculty recruitment and evaluation activity should have strong regional/rural influence. This is more likely to be achieved with the regional/rural medical school model, but is possible within devolved clinical school models.

3. Design a curriculum with the appropriate content and process, including assessment processes that reinforce learning relevant to the mission

A curriculum can be described as the formal, operational plan for facilitating learners to achieve the mission of the medical school. Hence, learning objectives should match the mission and the available resources and opportunities. Curricula designed for larger, urban-based medical programs are inappropriate to the needs of regional/rural developments, because they are designed for the expectations, resources and opportunities in those larger centres. Problem design should take note of regional and rural contextual issues³. Similarly, assessment of learners should expect contextually relevant answers, which in some cases might be different to those for the same questions asked in urban centres, particularly about health status and process of care issues.



4. Recruit faculty who are positive role models for regional/rural practice

Role modeling is often not considered, yet can be a powerful influence for less popular career choices⁴. Learners often receive conflicting, and sometimes negative, comments about practising in regional/rural communities. Students may be told that they 'are too good for that', or that 'you will never get into a decent postgraduate training program'. There are many potentially interesting careers in regional/rural practice in many disciplines, both generalist and specialist, even if for only a brief time before further career development. Regardless of their clinical discipline, faculty should demonstrate understanding of, and support for, professional practice in regional/rural communities, and should demonstrate how to be successful practitioners and leaders within regional/rural communities.

5. Select students who have the best potential to achieve the mission

There is strong evidence from several studies in different countries that regional/rural background students are more likely to work later in regional/rural communities⁵⁻⁸. Educational programs that aim to improve recruitment into regional/rural practice should develop admission processes that attract and select students who were raised and educated in regional/rural communities.

6. Ensure high quality learning in both campus-based and clinical teaching facilities, with the latter ideally dispersed across the region of need in a range of communities

Regional and rural developments will almost certainly have to operate in smaller population centres, with smaller healthcare facilities where staff may be less familiar with recent developments in medical education. More of the learning may have to occur away from the main campus, and effort has to be invested in assuring the quality of the teaching across several distributed sites⁹. Faculty development of local health professionals may be a high priority.

7. Ensure that graduates have opportunities for relevant and desirable postgraduate training

Health professional education is a long-term process that spans working life. In medicine, the separation is sharper between undergraduate, postgraduate and continuing education, such that their medical education programs are funded or managed separately. It is essential that learners can complete their professional development within the region that has workforce needs. If people have to leave for a substantial period of time, some will not return. Hence, there needs to be complementary opportunities for undergraduate and postgraduate education, and then enriching continuing professional development for a wide range of career pathways.

8. Facilitate research development in areas of relevance to the mission

One fact of life in the higher education sector is that educational institutions will be judged on their research performance. Some new institutions choose the difficult path of trying to compete with more established urban institutions. For example, a new school might decide to establish a centre for biomechanics that has to compete with the wealthier and better connected metropolitan research centres that have strong track records. An alternate approach is to focus on research relevant to the mission of the regional/rural school, such as health services, population health, workforce and education research. In these areas a regional/rural school may be more likely to achieve national and international leadership.

9. Build in sustainability through succession planning, maintenance of the mission, and managing expectation

One major challenge for new developments is that the most important resources – the people that negotiated the mission, designed the program and oversaw the pioneering phase – inevitably move on. Pioneers of change often seek new opportunities for effecting change once the innovation is in place. New leadership is required to oversee the evaluation



and refinement necessary to improve the development and prove its merit. These tasks may require different skills from those of the pioneering visionaries. Hence it is vital to foresee the leadership handover and recruit the people who will be familiar with the mission and implementation history, and ensure its consolidation. This can be a difficult period, as the results of the longer-term evaluation will not be available and some observers may challenge the ability of the development to deliver its desired outcomes. There is often a tendency to respond by changing the focus of the development to compete more directly with the established schools, in both teaching and research, a strategy that may not succeed, but may derail achievement of the original mission.

10. Evaluate the development and disseminate the results

In an era of evidence-based medical education¹⁰ there is a clear need to demonstrate successful achievement of the intended goals of any innovative development, as well as to develop an understanding of how and why success or failure resulted. Evaluation needs to be at two levels. The first level is the 'big picture', where the outcomes of the development are evaluated against the mission and outcome objectives. This is likely to take several years, as the outcomes generally relate to career choice and/or location. Hence the second level – impact and process evaluation – becomes very important in the shorter term. Each step or component of any new development should be evaluated, even at structure and process level, to provide information about how sound are the concepts and implementation strategies. This kind of evaluation will also guide the inevitable refinement that is required to improve program delivery.

Summary

Innovation is more than having new ideas, and to be successful requires a broader and persistent approach that seeks continuous quality improvement and sustainability of thinking, resources and management. The natural history of many pioneering medical schools has been to transform

themselves into more traditional models, but there may be a place for the development of centres of expertise in educational innovation, particularly to advance the cause of regional and rural medical education, which operates in a very different environment to more traditional medical schools.

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