FLINDERS UNIVERSITY OF SOUTH AUSTRALIA
SCHOOL OF MEDICINE

PARALLEL RURAL COMMUNITY CURRICULUM (PRCC)

FINAL EVALUATION REPORT

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This report is prepared for the Commonwealth Government of Australia by Professor Nigel Oswald, Professor in Primary Health Care at the Universities of Teesside and Newcastle-upon-Tyne, acting as International Assessor. It represents the final evaluation of the project known as the Flinders University Parallel Rural Clinical Curriculum (PRCC), which is part of the national programme to enhance the recruitment and retention of medical graduates to rural general practice in Australia.
EXECUTIVE SUMMARY

1. I conclude that the PRCC makes an important contribution to rural medical education, has central and rural support, is educationally sound and will benefit the country, the State and the local community.

2. The innovative aspects of PRCC are recognised as a distinctive success for Flinders University and for the Government’s rural program.

3. PRCC has provided underpinning evidence for the feasibility and effectiveness of rural medical education initiatives.

4. PRCC has contributed evidence to support widespread changes to the education of medical undergraduates in Australia.

5. PRCC has achieved more than was originally envisaged and represents an excellent return on the initial investment made.

6. Flinders University has met its responsibilities to rural communities, to initiate a rural education program and to use identified funding to support the program, as recommended by the Rural Undergraduate Steering Committee.

7. The University has been successful in recruiting students and faculty to the rural program (see Appendices A & B).

8. PRCC has distinctive features which will contribute to a ‘new professionalism’ among Australian medical graduates.

9. PRCC is recognised internationally as an example of innovative good practice in medical education.

10. PRCC has been supported at every level within Government, the University, Flinders Medical Centre (FMC), among rural practitioners and rural communities. This support is acknowledged.

11. PRCC students have been academically successful and have improved their class position relative to other students.

12. PRCC has now become part of the larger educational initiative known as the Flinders Rural and Remote Community Clinical School (FRRCCS, referred to in future as RCCS).

13. The direct involvement of local health services and the local community has been a key element in the success of PRCC and is an essential part of continued support for RCCS.
14. There is a ‘virtuous circle’ in which the confidence generated among rural preceptors improves their morale, in turn increasing the support for rural programs.

15. The Report considers how the initial success of PRCC can be sustained in RCCS.

16. Rural communities need to be informed about rural programs and their success, and thanked for their contribution.

17. Sustaining the program requires continuing academic, administrative and financial input.

18. Staff at the RCCS are dedicated to the success of the initiative. They deserve high praise and continuing active support.

19. The role of ‘Local Academic Co-ordinator’ (LAC) is key to continued success and is distinct from that of a senior GP preceptor.

20. The LAC will be the driving force behind continued rural program success.

21. There are issues of equity between students in dispersed rural settings, and ensuring reasonable equity is one of the roles of the LAC.

22. Local preceptors have educational and support needs.

23. Student support for the program remains strong.

24. The success of PRCC has resulted in higher student expectations.

25. Students can be the main stimulus to ever-higher achievement and student feedback should be listened to with attention.

26. Students are active contributors to the course and recognise that they have responsibilities as well as rights.

27. The special benefits of rural attachment recognised by students include extended contact with patients, hands-on experience, consistent input from teachers and a close association with their career aspirations.

28. PRCC has engendered a change in attitude among FMC specialists to rural practice and rural practitioners.

29. The medical student initiative has been associated with a large increase in rural training, with both medical and nursing developments.

30. The total number of undergraduate and graduate medical and nursing trainees in the Riverland has increased from 4 in 1996 (before PRCC) to 114 in 2002.
31. RCCS is perceived locally as a practical and relevant response to rural workforce pressures

32. Rural GPs and specialists agree that exposing students to rural practice will increase rural recruitment

33. Recruitment to nursing from local residents has been very successful:

34. Expectations of increased medical recruitment is high in the community

35. The length of medical training is such that these expectations have not yet been met. There is a high likelihood of a sustained increase in recruitment to rural practice

36. The career pathways being followed by 85% of PRCC graduates are compatible with, or lead directly towards, rural careers (Appendix B)

37. Approximately 25% of all PRCC graduates are now associated with the local (Sturt-Fleurieu) GP Education and Training Consortium

38. Medical training initiatives grow the local health economy and increase rural capital

39. The establishment of a ‘rural sub-quota’ of students has impacted on RCCS

40. These students are a group who bring strengths to RCCS, but they should not be placed under greater pressure because of the method of their selection

41. It is hard to place a ‘dollar value’ on PRCC so soon

42. The success of PRCC has allowed other Commonwealth initiatives to proceed with confidence

43. The initial investment in PRCC must be seen as an essential first step in addressing rural workforce issues. The positive return on the initial investment has been very great

44. Figures currently available from PRCC graduates show that about 85% of them are likely to enter rural practice

45. If these figures are generalised, and if sufficient training places are available, the domestic graduates can be expected to stabilise the workforce in about 7 years

46. Expanding the rural workforce will require additional student numbers or even higher preferences among young graduates for rural practice
MEDICAL CARE IN RURAL AND REMOTE SETTINGS IN AUSTRALIA

The difficulties of access to adequate health care for people living in the rural and remote parts of Australia are well recognised.¹ There are difficulties in recruiting and retaining an adequate medical workforce in these areas². Metropolitan practice is seen as professionally stimulating, and social and family aspirations can be easily achieved. By contrast, perceptions of rural practice suggest a limited professional and social life, restriction in opportunities for partners and spouses, isolated conditions of work and practice, reduced job satisfaction due to the need to refer patients to urban centres, and a belief that the provision of high quality services is more difficult in rural practice. Although similar perceptions exist even in smaller countries of Europe, the distances involved in large countries such as Australia, North America and South Africa mean that the difficulties in maintaining the rural workforce are particularly great.

Government initiatives to address rural recruitment and retention

Although the majority of the Australian population lives in cities, approximately 30% live in rural and remote communities. These individuals have substantial health needs and their aspirations for available, high quality and effective medical services are as great as those for any other location within the country. Governments and medical professionals have struggled with the difficulty of how to provide high quality general medical services to small and isolated communities, and how to provide accessible specialist services in such areas.

In August 1992 the Commonwealth Government announced a major strategy to improve access to general practitioner services, to encourage better links between general practice and the rest of the health system and to enhance the quality of general practice. Measures were implemented to encourage general practitioners to practice in rural and remote areas through the Rural Incentives Program (RIP)³. It was also perceived that a more radical approach, involving the medical schools and the experience of rural practice
within medical school curricula, needed to be addressed in order to provide a long term solution to the well-recognised difficulties.

Medical care in rural and remote settings in Australia
The report from the Rural Undergraduate Steering Committee for the Department of Human Services and Health, published in May 1994\(^1\), recommended that:

- There should be strategies to increase the number of rural based students enrolling in medical schools
- Medical school courses should contain an increased rural component
- There should be increased infrastructure/support systems for teachers and students in rural placements
- These initiatives should be supported by newly identified and protected funding

As a result medical schools gave attention to the needs of the wider community, making proposals to increase training in rural settings and designed to increase the interest of students in a rural career. The emphasis of the report and of the medical school initiative was primarily focused on the recruitment and retention of general practitioners.

The Flinders Parallel Rural Clinical Curriculum (PRCC)
The PRCC was initiated in 1997 at the Flinders University School of Medicine as a pilot ‘Project of National Significance’\(^4\). It was evaluated from an early stage of its development by internal University assessors, by the Department of Primary Care at Flinders University and by Professor David Newble, then Head of the Clinical Education Development Unit at the University of Adelaide. Early indications showed that the students selected for the programme were performing well, and that the programme was providing for their needs in such a way that they were at no disadvantage in comparison to students based in the standard problem based course running at the Flinders Medical Centre (FMC).
The interim evaluation by Walter M Swentko, MD

Late in 1999, as it neared the end of its first three years of funding, an interim evaluation of the progress of the project was undertaken by Professor Walter Swentko, Assistant Professor of Medicine at the University of Minnesota, USA, and Director of its Rural Physician Associate Program. This program had been running for 12 years at the time of the interim evaluation, and provided early indications of a sustained boost to recruitment to rural practice among students who had undertaken the program. It was recognised there, as well as in Australia, that two key elements in developing rural practitioner capacity were to

(a) recruit students from rural backgrounds
(b) provide experience for students of work in a rural setting during their undergraduate medical course

As a result of these evaluations the significance of PRCC was recognised. It has now been incorporated into the ongoing Rural Clinical School Program and developed as the Flinders Rural and Remote Community Clinical School (RCCS)

THE SCOPE OF THE PRESENT EVALUATION

My role as External Assessor of the Flinders PRCC is to provide a Report for the use of the Commonwealth Government and the Flinders University of South Australia to evaluate the PRCC in terms of its outcomes, value for money and likely impact on recruitment of medical staff to work in rural and remote settings. Although the PRCC model is now used in other regions of Australia, this report focuses on the Riverland PRCC in relation to the specific project funding provided to it by the General Practice Branch of the Department of Health and Ageing.

METHODOLOGY

The evaluation was carried out by means of personal interviews with key participants spread over a total of eight days in April and August 2002. These interviews took place at the Flinders Medical Centre, in the offices of the
Department of Health and Ageing in Canberra, and in the Riverland area of South Australia. The interviews were informed by knowledge of the internal workings of the PRCC, of previous reports on possible solutions to the difficulties in rural recruitment and of the interim report on PRCC carried out in 1999. A list of those interviewed for the evaluation is included as Appendix A.

Analysis of the interviews was carried out to generate themes emphasised by participants and related to the broad aims of the evaluation and the known wishes of the Government and University for the outcomes of the analysis.

MAIN THEMES OF THE EVALUATION

1. Overall performance of the PRCC

1.1 Performance of Flinders University against the recommendations of the Report (1994) ‘Reforming undergraduate medical education for rural practice’

• The medical school has accepted and acted on its responsibility to rural communities by supporting the PRCC

• The medical school has successfully initiated a rural education programme and has devoted appropriate resources to central academic support and support of facilities and practitioners in rural settings.

• The medical school has successfully recruited to the PRCC students with an interest in future rural practice, as well as students from rural backgrounds

• The recent initiation of the RCCS has further established the rural base for training, and extends the innovative ideas piloted in PRCC.

• Funding earmarked to overcome barriers to placing students in rural settings for training has been effectively applied to this purpose.
• The methods adopted by the University have provided value for money, and have been the catalyst for change far greater that that envisaged in the original program. Further analysis of value for money is contained in Section 5

I confirm and endorse the conclusions of the interim report (1999) that the PRCC has made significant strides in rural medical education, is supported centrally and in the rural setting, is educationally sound and will benefit the State, the country and the rural community.

1.2 The Riverland PRCC as an innovative venture
The PRCC is recognised nationally and internationally as a successful model, which can be applied by other universities and in other countries. It is recognised that the model may be generally applicable as an effective approach to medical education to set alongside the traditional model of hospital based, specialist-led education. It may also be applicable in multiple health settings, including urban fringe practice.

The distinctive features of PRCC include
• The placement of students in rural general practice settings
• The development of IT support to peripheral students
• The contribution of FMC specialists to education in the rural setting
• The opportunities for students to further develop independent and self directed learning
• The opportunity for continuing contact with patients
• The integration of students into a practice team
• The extended clinical opportunities available in rural practice

All of these opportunities contrast with the traditional teaching hospital-based setting (albeit at Flinders the ‘traditional’ programme is itself a recently-developed graduate entry medical programme). The PRCC is innovative in its educational style, and points towards a ‘new professionalism’ in the training and practice of doctors.
My review has found that there is widespread support for the programme at every level, and its ground-breaking attributes are recognised as a distinctive success for medical education at Flinders University and for the Government’s rural programme.

1.3 Performance in relation to medical school expectations

The Dean of Medicine at Flinders University describes the PRCC as ‘A comprehensive start to lifelong clinical education’

1.3.1 Recruitment of students

Students have vied with each other to join the PRCC and linked programmes, which include a prolonged placement of students in Darwin and the newer initiative which places students in rural general practice in the Greater Green Triangle (see para 1.4.2). Through these programmes nearly half of Australian resident medical students at Flinders receive prolonged exposure to training in a rural or remote setting.

Recruitment has been aided by the ‘word-of-mouth’ support for the PRCC from previous students. Among those I met there was not one who claimed that with hindsight they would have preferred to undertake year 3 at FMC.

Recruitment has also been supported by the introduction of a ‘sub-quota’ of students selected from rural backgrounds, and by scholarships designed to help rural students. The first group of sub-quota students have reached third year in the curriculum in 2002, and have many constructive suggestions to further improve the PRCC experience.

It has been said that students attracted to PRCC may be already considering a rural career. If this is so the number and quality of recruits bodes well for rural practice in the future. The PRCC has also attracted students not originally drawn to rural practice. It provides such students
with a solid basis for optimism that rural practice will suit them, and introducing them to rural specialism as well as rural general practice.

1.3.2 Examination performance of students
Students taking part in PRCC are assessed according to the same criteria and by the same examiners as students on the traditional course. Overall, students learning through PRCC have improved their position in class relative to traditional students\(^6\). This fact has been important in reassuring those in FMC who doubted the wisdom of the proposals for rural education, and has sustained support for PRCC programmes among specialist staff and students.

1.3.3 Effects on the medical school curriculum
Innovative programmes can affect established curricula through incorporation of newly-available learning opportunities and by emphasising educational principles such as self-directed learning and the importance of a spiral curriculum.

The PRCC clinical experience is perceived (for example by David Prideaux, Professor of Medical Education) as being richer in clinical experiences and capable of influencing the central curriculum. This will occur through direct inclusion of material of significance in rural settings and by emphasising some aspects of the curriculum, such as personal and professional development, whose importance is especially obvious to students based in settings closer to independent practice.

The PRCC model is viewed by some as so powerful as to suggest that in future the tertiary hospital may become a secondary site for teaching clinical medicine at undergraduate level.

1.3.4 Additional effects within the medical school
The PRCC provided the means by which the medical school piloted new ideas which influenced the wider university and other institutions. PRCC has been important in influencing views about the proper relation between
the central university and peripheral sites. Examples described by the Dean of Medicine include the initiation of about ten rural health programmes, the promotion of a distributed campus for the University, greater engagement with the regions and innovation in the use of Information Technology and distance learning.

1.4 Organisational performance

1.4.1 Evolution of the organisation and administration

As with many pilot scheme PRCC began with enthusiasm, goodwill and energy, and with input from a small number of committed individuals. As the success of the scheme became apparent, and its life extended, the administration of PRCC has had to develop, taking on more complex tasks and addressing issues of sustainability, accommodation, external interest and developments within the program itself. I can report that these tasks have been addressed with foresight, flexibility and commonsense. The PRCC has played host to an International Conference on Rural Medical Education in April 2002 as part of the World Organisation of Primary Care Colleges (WONCA) Conference, and international visitors and national delegations have been received in the Riverland. The success of the pilot has been far greater than initially could have been forseen, and has highlighted Australian approaches to addressing the international problems associated with rural recruitment and the provision of rural medical services. The efforts of all those involved, particularly those placed from the start in the rural setting, should be acknowledged and applauded.

1.4.2 Transformation of PRCC into the Flinders Rural & Remote Community Clinical School (RCCS)

The PRCC was resourced by two three-year contracts with the Commonwealth. During the currency of the second contract Government policy established a Rural Clinical Schools initiative, and an agreement with Flinders University to establish the RCCS has been signed for the period 2002-2006. The RCCS is a substantially larger initiative than PRCC, including responsibility for the Mount Gambier region, new developments in the Northern Territory, involvement with the Sturt Fleurieu post-graduate
education consortium and the establishment of a central administration which, under the terms of the agreement, must be rurally based (at Renmark in the Riverland).

Administrative staff in Renmark already have an informal association with the development of the local nurse training programme in the Riverland, and occupy premises made available through the good offices of the Renmark Paringa District Hospital.

It is clear from the evidence I obtained that the establishment and success of PRCC has been a crucial element in providing local and central confidence in the feasibility of rural initiatives. Very large change and momentum to further change have been derived from the initial investment in PRCC.

1.4.3 PRCC in relation to Regional organisations
The initiation of PRCC involved a commitment from the Riverland Regional Health Service and its constituent hospitals sited within each of the participating towns (Barmera, Berri, Loxton, Renmark and Waikerie). This support was offered as part of a vision, and included access to hospital and health service premises, supported accommodation in some sites, ‘in-kind’ support such as meeting space, photocopying and video-conferencing facilities and permission to engage with patients and staff of the service. This support was freely and consistently given, and has amounted to approximately $A100,000 per year at a time of financial stringency (Nino di Sisto, CEO Riverland Health Service).

The benefits received by students in PRCC have been partly repaid by clinical activity undertaken by students, and partly by the stimulus PRCC has given to training of other health professionals in the Regional Health Service area (see section 4.1). However, the support provided by the local community and the State of South Australia through the Health Service should be acknowledged as far-sighted and based on an appreciation of long term solutions to local pressures.
The relation between PRCC and local general practitioners will be dealt with in section 4.1, and with the local community in section 6.

2. Generalisability of the lessons learned from PRCC

The PRCC was a pilot study not only for Flinders University but for the whole of medical education for rural practice in Australia. However successful the pilot is in its own terms, the true measure of its value is to be found in its applicability in other rural areas, in other health care settings and in any general lessons learned by the medical education community.

2.1 Commonwealth Policy

The PRCC pilot has already pointed towards a new direction. What was initially a pilot scheme for eight medical students in 1997 is now reflected in Commonwealth policy initiatives to ensure that 25% of all medical students spend 50% of their clinical time in a rural setting, and in the establishment of the Rural Clinical Schools program. These initiatives were greatly strengthened by the confidence generated by the Flinders program, and represent further evidence of the widespread impact from the initial investment in PRCC.

2.2 State policy

As already indicated, State support for PRCC has come through general interest in the outcomes of the initiative and specific support through the activities of the Regional Health Service. I understand that the State Government, encouraged by the PRCC experience, intends a marketing approach to encouraging the much wider uptake of health-related courses in rural settings. PRCC is perceived as having encouraged University interest in regional policy and regional activity.

2.3 Roll out of PRCC from Flinders University

The successful extension of prolonged rural attachments to Darwin, to the Greater Green Triangle and the developing connection with the Sturt
Fleurieu Consortium have already been noted. Plans are being prepared to take similar programmes into the deprived urban fringe of major centres of population. Initiatives to extend contact into High Schools to stimulate interest in careers in health care professions are under way, and other national medical systems, notably that of Thailand, are actively looking to the PRCC model to address rural health care problems of their own.

Several interviewees have pointed to a ‘virtuous circle’, in which rural health practitioners, who may doubt their abilities as practitioners and teachers, are given increased confidence by involvement and support in their role in medical education. This increased confidence is reflected in their morale, quality of practice and willingness to remain engaged in providing rural education to others.

2.4 The effects on other medical schools
In the context of Commonwealth emphasis on increased rural training opportunities many Australian Universities with medical schools have approached Flinders with a view to gaining expertise accumulated in the early years of PRCC. As well as details of structure and process, other institutions have gained confidence in the feasibility and effectiveness of rural education programs, and have expanded their infrastructure and experience in fields such as distance learning.

2.5 The wider effects on health care training
The viability of rural settings for training demonstrated by PRCC have also appeared to impact on perceptions about training for health care professions, particularly nursing, among school leavers, drawing on a population of individuals who would not have entered the profession if they had needed to travel to a metropolitan area to train. Further details are given in section (4.1).

2.6 Effects on the rural community
The community directly affected by PRCC have supported the program practically and morally. There is every reason to believe that rural medical
initiatives are viewed positively by rural communities, reflecting well on the University involved and the funders of the program. There is no reason to suppose that similar positive perceptions would not prevail in other areas of the country. Long term perceptions are dealt with under section (6).

3. **Sustainability of the rural undergraduate programme**

Innovation is a powerful motivating force. Once a program is no longer radical, enters the mainstream and is copied by others, some of this innovative zeal is lost. The PRCC has been sustained for its first five years by a tide of approbation, which my evaluation has confirmed is widespread and genuine. This Report must also look at the conditions under which the advances made can be consolidated and sustained.

3.1 **Innovation to steady state**

‘As the program grows, so does the expectation’ (Nino di Sisto)

During these early years medical school faculty, rural faculty, administrators and students have all been conscious of being under scrutiny as the ‘early adopters’ of a new way of educating doctors. The type of doctors which communities need, and the shortages of rural practitioners, have been powerful motivating forces in underpinning interest in the experiment both locally and in Canberra. Good results and good experiences have promoted belief in the model, and ‘paradigm shifts’ in perceptions about the methods and purposes of medical education have occurred.

The raised expectations have inevitably had consequences: students expect increasingly high standards as a right, and may underestimate the personal strength and self-reliance required of the ‘pioneer’ students. GPs who began to teach in trepidation and uncertain of the program’s future now have to sustain the impact of medical students on their practice. They are more reflective, and therefore more critical, about communications with and from FMC, and the support they receive as faculty members. Within
the medical school, especially with the emphasis on new initiatives, there is a temptation to assume that the early programme is now a self-perpetuating, smooth-running system. The next section considers what is necessary to keep the engine running smoothly.

3.2 The sustainable state

3.2.1 Resources

The Rural Clinical School Program is funded as a separate entity. This funding is crucial to the continuation of the RCCS initiatives, as are Practice Incentive Payments (PIP), and Scholarships to encourage training by students from rural origins.

Support in cash and in kind by the Regional Health Service and the local community is equally important. It is essential that local services and people see a return on their investment, that return being measured in terms of returning practitioners. The Riverland needs to be continually reminded of the program, informed of its progress and success and thanked for their contribution to it.

Once the pilot phase is over it is possible that the resources committed to such programs will appear unduly great if a limited view of ‘value for money’ is taken. The whole of section 5 is devoted to what constitutes a balanced assessment of value for money.

3.2.2 Effective input from FMC and RCCS

Electronic communications, visits from FMC specialists, the provision of materials to underpin the Problem Based Learning (PBL) cases and information about assessments and expected outcomes all originate within the central medical school structure. They are welcomed and directly affect students, administrators and GPs. If there are any shortcomings these are immediately apparent and widely discussed. It is essential that as much attention is paid to sustaining communication and providing active and timely local administrative support in an on-going programme as would be provided at ‘start-up’.
3.2.3 Local academic leadership

The appointment of local Academic Co-ordinators as part of the faculty of RCCS provides the opportunity to ensure local leadership, focus and assurance of the quality of the program. The Academic Co-ordinator needs adequate time, directorship support, a clear understanding of the responsibilities devolved to him/her and the skills to carry out these roles. The role of Academic Co-ordinator is different in kind from that of GP supervisor, and the separation needs to be explicit and clearly defined. The Academic Co-ordinator is the driving force behind program sustainability.

3.2.4 Professional development for local faculty

From the point of view of local practitioners who agree to take on the role of preceptor, the development of programmes such as PRCC goes through several phases. There is an initial phase of interest and uncertainty, when being involved in an innovation outweighs any doubts about capacity or competence. This is how any such local programme gets started, and often depends on a small number of local opinion formers. Once students have arrived, supervisors find that their skills match up to the task, and their concern changes from ‘Can I do it at all?’ to ‘Am I doing it well enough?’ Perceptions that they are performing well come from feedback from students and from central faculty, but can tend in one of two directions. If associated with continuing professional development it can lead to ever-higher levels of enthusiasm and quality. If perfunctory it tends to a perception that the supervisor's actions are little noticed, or that the supervisor is there to provide access to facilities, without genuine responsibility for educational content and quality. Avoiding these negative perceptions is a key issue for sustainability and for the Education Co-ordinator, and any slackening of enthusiasm needs to be recognised and managed. The importance of the role of Co-ordinator to ensure continuing local professional educational development has been recognised at Flinders, and specifically in PRCC.
3.2.5 Listening to the students

Coming to PRCC as an external evaluator allows me to provide a fresh insight into student opinion. I was impressed by their enthusiasm for the course and for rural practice. I have no doubt that the PRCC sustained many who were considering rural work and, through the quality of the course, attracted others to experience rural practice. Information about courses spreads, whether positive or negative, through the student body and influences choices in placements and experiences. Sustainability of the course depends on continuing good reports.

Over time the type and attitude of students in PRCC has evolved. Early students needed to be innovators, willing to take a risk. As myths about rural practice were dispelled and examination results proved good, students joined PRCC with high expectations of both the experience and the academic content. Now, students take for granted an exposure which was radical five years ago, and may look critically at imperfections which they would have discounted either in the early days of PRCC, or in their traditional course. The advent of the ‘rural sub-quota’ of students can be expected to further demonstrate this phenomenon, which should be regarded as a positive expression that an excellent course can be even further improved. However, the rising expectations which inevitably accompany success are a challenge to sustainability and are ignored or resented at peril.

The aspects of PRCC on which students repeatedly reported positively included the extensive and extended contact with patients, the opportunity for direct and continuing contact with teachers, the hands-on experience and the feeling that all of their work was contributing to the outcome they desired: to become a doctor caring for patients. In some cases the student experience was expressed as ‘very good, but able to be extended even further’. This challenge is the ultimate one for an innovative course: if its achievements fulfil all the initial hopes, how is it continually developed, and how are supervisors sustained in the face of continually rising (but desirable) student expectations?
Finally, every student to whom I spoke agreed that they would again follow PRCC in preference to their traditional option in FMC

3.2.6 Rural support
The local community has supported PRCC wholeheartedly from the start and is directly involved, for example in the selection of sub-quota students. The benefit perceived by the community is in the return of students to rural practice in their locality, and the sustainability of local support depends on this expectation being fulfilled. This first graduate of PRCC to return to a vocational training post returns next year, and this has encouraged local opinion. (See section 4.4)

3.3 Capabilities of practitioners in rural health care
It was stated to me that, when PRCC was first proposed, there were doubts at FMC that either rural specialists or rural general practitioners had the capabilities to effectively educate medical students. In the event the reports, the examination results and, perhaps most of all the personal contact between clinicians from FMC and their rural counterparts has reversed this opinion. It is a triumph for PRCC that it has catalysed a change of attitude within the medical school to rural colleagues and, as such, must contribute to greater respect and interest in rural practice in the following generations of medical students.

Associated with the medical student initiative of PRCC have come further initiatives in education. Examples include local training of nurses, drawing recruits from sections of the community with no history of training for the health professions, and the presence of surgical trainees in local hospitals for the first time in years. While these initiatives cannot be attributed directly to PRCC there is no reasonable doubt that increased local confidence, feeding on the medical student experience and coupled with a changed reputation for the Riverland, played its part.

‘It just has to be positive, having training going on’ (Rural surgical specialist)
3.4 Training and education for supervising professionals

All professionals within the health system need further training and development. This is because there is always more to learn but also because satisfaction is maintained by increasing competence and skill. It is part of sustainability.

Rural educators with whom I talked demonstrated some ambivalence about training in education. Some felt that further training was unnecessary, and that they were capable of filling any perceived gaps in their skills themselves. A larger number of those who expressed an opinion wished for further development, particularly in understanding and responding to students’ needs in the curriculum. Many also wished to know more about the skills of teaching, believing that they were probably doing an adequate job but without the foundation to be sure. The longer a teacher has been working the more difficult it is to ask for basic training, but I found that the desire for support came from some older, well-established teachers, as well as new recruits. The RCCS provides a basic introduction to the teaching role but some teachers, at least, would gain confidence from greater opportunities.

There was an opinion that GPs make little use IT facilities provided as part of the course, but that IT training for teachers would benefit them personally and in their education role.

I found a division of opinion about the opportunities to develop GP registrars as teachers of medical students. This occurs in only a limited way, but would seem to be potentially beneficial on both sides. It is surprising that little such education goes on since several of the practices host registrars, and much hospital based education of students is undertaken as a matter of course by registrar grade staff.
3.5 Quality control

Quality control is an issue in any dispersed academic site, and particularly in the multiple sites involved in community based education. Ensuring quality and reasonable equity is a key role for academic co-ordinators. In the case of PRCC the ultimate quality and the comparability of the education received by students has been assured by the fact that they take the same examination as traditional students. In these examinations they have performed at a high standard and have, as a group, increased their relative position within the class. The overall quality of the PRCC and the education it provides is currently assured.

Three other issues are worth discussion:

The first is the extent to which the traditional examination acts as a brake on innovation within a course in which students claim that their skills, in at least some areas, far outstrip those possessed by traditional students.

The second is that of equity. It is not expected that supervisors within general practice settings will offer identical student experiences, and identical experiences are not on offer in the traditional course. However, because of the intimate and prolonged linkage between individual students and a particular practice setting there is the possibility of systematic and sustained variation between the opportunities offered to one student and another. Practices are also subject to unpredictable change, such as the resignation of a partner. It is important that minimum requirements of the style and experience offered to students is formalised in some way. The requirements should be set by the Rural Clinical School and overseen by the Academic Co-ordinator.

The third issue is the extent to which GP supervisors, who know students over a prolonged period, should act as summative assessors. This is a role for which no supervisors feel prepared. If it were to be considered, explicit training and consideration of conflicts of interest would need to be taken into account.
3.6 Other workforce pressures
I was told of an example of how PRCC has become a victim of its own success. In recent years medical students on PRCC have provided valuable physical assistance to rural surgeons in operating sessions. In return they gained expert teaching, manual experience and contact with patients. Recently the arrival of surgical trainees, themselves hungry for experience, has reduced the input to students from specialists and resulted in some reduction of the acute surgical experience available to students, along with their feeling of ‘belonging’ within the surgical team. This illustrates how some of the educational intangibles of a course such as PRCC are vulnerable to external changes within a local medical landscape.

3.7 Remote areas
The difficulties of rural areas are being energetically and effectively addressed. I did not consider issues for remote areas but it is clear, given medical student elective experiences and the undoubted needs of remote practitioners, that innovative solutions in distance learning, telemedicine and discussion groups might play a part in increasing the profile of medical practice in remote settings.

4. The effects of PRCC on the rural medical workforce
4.1 The current situation
I am informed that the situation in recruitment and retention of both rural GPs and rural specialists remains critical. There is widespread acceptance among both groups that exposure of students to a continuous experience in a rural setting will be beneficial for recruitment and for understanding among students of what a rural life will have to offer them. There is therefore sustained goodwill for the scheme and a perception that it is practical and directly connected to workforce needs.
Practice based staff, and staff in local hospitals relate to, support and encourage students. They also feel that some of their difficulties are being addressed.

Most students report a strong feeling of connection to the teams in which they work and a sense of the value they represent to the teams. Many of them have a strong sense of already being ‘at work’ (on behalf of the patients and the service), and regret losing this sense as they return to the student role in FMC.

‘It doesn’t feel like being a student. It feels like going to work each day’ (5th year student)

‘I don’t think we can repay what we have been given within the system’ (3rd year student)

‘By the end of a few months the students reach a ‘break-even’ point. They are contributing as much as they ever get from us’ (GP Supervisor).

There has been an objective and continuing increase in training posts in the Riverland in the last six years. Figures provided by Nini di Sisto, Chief Executive of the Riverland Regional Health Service indicate that in 1996 the only health students in the Riverland were four graduate nurses. In 2002 the figures are:

8 PRCC medical students
2 surgical trainees
4 anaesthetic medical students
63 undergraduate nurses
16 postgraduate nurses
4 nursing cadetships
15 High School VET trainees
2 graduate accountants

This makes a total of 114 students/graduate trainees. At the same time the health economy has grown by about 40%.
4.2 Projections forward

I have been told that the activity associated with presence of the Rural and Remote Clinical School in the Riverland will benefit the range of health care, and that rural recruitment will improve. Professionals coming to rural settings will be better prepared for what is expected of them, and they will represent a 'new professional' (Prof D Prideaux) who is well educated but also flexible, robust and able to sustain her/himself through lifelong learning.

It is particularly impressive how individuals who would not have considered a career in health, particularly nurses, have had the door to this profession opened by the local provision of educational opportunity.

However, it will also be necessary to retain local goodwill among professionals and the community, and if there is a faltering of ‘pay-back’ this may be damaging.

4.3 What are the expectations?

The expectations of the effect of innovations like PRCC on the rural workforce are not uniform.

Among community members expectations are high (that students will return as doctors to their community, and not to any other). The placement of the RRCS locally is important in this regard.

Among medical school staff there are different views: it is not yet clear how much PRCC has been ‘preaching to the converted’. It is necessary to consider the extent to which individuals who return to local practice will do so for a period of years rather than for a lifetime.

Among students there is a solid intention to return to rural practice, but less certainty about ‘as what’, where and for how long. Some have changed their intention from rural practice to rural specialism, and vice versa. It is important also to recognise that practicalities may influence future choices. For example the places in which it is possible for students
to undertake intern and training posts is important. Some students expect that increasing anxiety around professional indemnity and the effects on interventional practice will also have changed their professional prospects before they have finally committed to a particular career.

4.4 *How soon are the expectations likely to be met?*

The community already perceives that it has been waiting a long time. The development of third year medical student into complete practitioner takes many years, and objective measurement of the career paths of students, or comparison with traditional students, is not yet possible. It is known that career intentions among students remain volatile until at least three years after they graduate. However students reaffirmed to me their intention to enter rural practice, and students are progressing along a path to general practice, with the first student entering vocational training locally next year.

An analysis of the current position of students from PRCC is as follows:

- 27 students have completed their intern year, of whom 26 are in training in Australia, and 1 will return to training after 1 year in New Zealand
- Of those 26, 15 are undertaking GP training, 12 in a rural setting and 7 (one quarter of all graduates) have chosen the Sturt Fleurieu GPET Consortium.
- 11 are currently in specialty training, 7 in specialties (anaesthetics, paediatrics, psychiatry) which are valuable in rural practice, and three of these are doing this specialty training in a rural setting
- 22/26 (85%) of graduates have started a path leading directly to rural practice or compatible with it.
- No students from PRCC have been qualified long enough to have completed training for any branch of practice, emphasising the long term nature of the investment. However, now that rural training is established, a steady stream of graduates will flow to rural communities year on year
4.5 Other benefits to the health economy
The relationship between FRRCCS and the Regional Services can be expected to benefit the whole health economy in terms of professional input, output, financial input and local support. Figures already quoted provide robust evidence of an effect of the rural initiative far beyond what was predicted or could have been expected at the inception of PRCC.

4.6 Other effects on rural life
Benefits to the health economy will increase rural capital. Local opinion holds that this will show itself by:

- Greater economic vibrancy
- Improved viability for local communities associated with reliable medical services
- Access to services and to training
- A sense that large institutions (Government, Universities) care about them
- Visibility for health services and initiatives aimed at rural populations

4.7 The selection and career progress of students
Students said they had selected the rural option for several reasons:

- Personal interest
- Recommendation
- Rural background
- Rural sub-quota
- Scholarships

The rural sub-quota of students has been identified in response to the recognition that students who come from rural backgrounds may have favourable attitudes to rural practice, but may have barriers to their entry to medical school. Four places per year are reserved for such students on the PRCC programme. The final selection process is carried out in the
Riverland and involves the local community, which therefore has direct stake in the program.

It is important that students on rural courses are not selected from too distinctive a group of students since the intention is to achieve a broadly spread appreciation of rural practice. In particular it is important that the rural sub-quota students are not singled out either by being stigmatised as ‘lucky’ that they were able to get into medical school at all, or by too great a burden of responsibility to a community which chose them.

While student maintain their positive attitudes to rural practice it is important that restrictions introduced for other reasons do not thwart their intentions. For example, restrictions on intern posts in rural hospitals close to one medical school may limit the choices of students who want to integrate and settle in that area. Some benefits of early student experience may therefore be lost, and the ultimate success of rural schemes may be affected by the extent to which students can be sustained and supported through intern year and PGY 1 & 2, when there appears to be a ‘black hole’ in the rural training program.

I understand that there is currently a limit of 200 places per annum (out of the total of 450) for GP Registrars to be placed in rural settings through the GPET Consortia

5. Value for money

5.1 How to assess value for money in a program such as PRCC
‘Value for money’ can be recognised in tangibles and intangibles. The tangibles could be expressed as:

• A crude ‘cost per student’ figure
• An ‘excess cost per student’ over (or under) the cost for a traditional student
- A discounted cost, which takes into account the contribution that students make to local health care
- A discounted cost which allows for any additional support accruing to the medical school because of its involvement with the innovative programme
- An 'excess cost per student year' discounted by the return to local communities when graduates return to active rural practice.

The intangibles consist in things which cannot be directly measured, although they can be perceived as potent benefits of the program
- Influence of the innovation on modernisation of other medical schools' curricula
- Improved morale and retention across a range of health care staff
- An effect in helping to realise Government targets for recruitment to rural training
- Effect on raising status of rural practice and improving communications between the periphery and the centre
- Effect on quality of life and voting intentions in rural communities

There are also speculative trade-offs, for example
- The increased costs balanced against investment in higher quality practitioners, or the unknown costs of having delayed action to a later date

5.2 Making an assessment of the tangibles

5.2.1 There is a risk that figures may give an unwarranted impression of objectivity, and be misleading
5.2.2 Any assessment of ‘value for money’ should be made against the costs of traditional education
5.2.3 If these ‘traditional’ costs are not known in detail, comparisons are invidious
5.2.4 For example, in my own work in the UK, we showed that the ‘teaching cost’ element of community based training was greater
per student than that apparent within the hospital, but that the fixed ‘infrastructure’ costs of the periphery were much lower than at the centre.

5.2.5 The expansion of health studentships generally within the Riverland contemporaneously with PRCC points to much wider benefits from the investment than merely the effects in undergraduate medical training. However, it is not possible to directly attribute, and therefore quantify, these benefits.

5.2.6 If a serious attempt is to be made to evaluate the cost of the programme it would be rational to base it on the cost of training set against each year of service which students repay to rural communities in their working lives. The cost will therefore diminish in proportion to the length of time students spend in rural practice. Even this cannot account for those who would have entered rural practice anyway. It will be many years before such an analysis can be attempted.

5.3 Making an assessment of the intangibles

5.3.1 The sense which I received during my enquiries that the Commonwealth had taken a bold step, of the right kind to make a difference to rural communities by encouraging initiatives such as PRCC, was overwhelming.

5.3.2 Support came from the top of the University and Medical School, and from Medical School Faculty, the Rural Clinical School, rural practitioners and specialists and the rural community.

5.3.3 I am not able to put any monetary value on this sense of innovation and support, but I have no doubt it is of its value in supporting the Commonwealth’s intentions.

5.3.4 The ‘Flinders Programme’ is internationally recognised as a prestigious innovation in medical education, and an example of good practice.
5.4 How to assess the success of the rural schemes

I have not attempted to connect the wide benefits of PRCC with its cost in dollars. I wish to offer a different analysis, which attempts to answer the question ‘What would be a big enough return to the country, and to rural communities, to justify rural medical school programs as a contribution to improving the nation’s medical care?’

5.4.1 As a response to the Report of Rural Undergraduate Steering Committee the Commonwealth embarked on pilot schemes to boost rural medical careers

5.4.2 The success of the early schemes contributed to a decision to press on further and faster

5.4.3 These schemes are also finding ready support

5.4.4 The context has now changed, and it is not necessary to ask ‘Was the original investment good value?’ Events show that the investment was an essential first step in a direction which the Government has decided to pursue further. By definition it represented ‘value for money’.

5.4.5 It is still unknown whether Government and communities will see sustained increases in the rural workforce as a result of early rural exposure,

5.4.6 Rural communities remember the time when ‘their’ doctor came into practice and stayed in one place a whole lifetime. They also remember an idealised doctor who could do everything

5.4.7 These role models, although they still exist, cannot be the model for the future of rural practice because of the modern gender balance among qualifying doctors and the desire of young professionals to be mobile and to experience different aspects of life.

5.4.8 It is necessary to accept these realities and work with them

5.4.9 It is important to view recruitment of rural specialists as just as important to the viability of rural medical services as is the recruitment of GPs
5.5 Some figures

Medical school numbers indicate 1269 domestic medical students graduating per annum. Official figures (Rural Doctors’ Workforce Agency) show that the rural GP workforce is 3563 whole time equivalents, and that the retirement/attrition rate from this workforce is 10% per annum. Therefore

- At a 10% attrition rate 356 recruits per annum to rural practice are required to maintain the workforce at its current level
- Assuming the medical schools reach their target for 2004 of 25% of students having extended rural experience, 317 such students will graduate each year by 2005/6.
- If 85% of these graduates begin rural practice (indicative figure from PRCC experience), and 10% of urban trained students opt for rural practice (current experience), recruitment to rural practice will be \((317 \times 0.85) + (942 \times 0.1) = 364\) pa
- On this basis, with full implementation of rural programs, the workforce can be stabilised using only domestic graduates by 2009/10

- At present the rural stream of GP registrars entering GPET Consortium programs is limited to 200 per annum (out of a total intake of 450 pa)
- An increase in the rural workforce by 20% over 10 years would require an additional recruitment of 70 GPs per year to rural practice
- This could be met from overseas recruitment or an expansion in domestic medical student numbers

There are three elements to stabilising and expanding the rural medical workforce:

The first element is that students should be attracted to rural practice, and be willing to accept employment in rural settings. This can be directly influenced by medical schools.

The second element is that there are sufficient training places in the rural streams to accommodate young doctors who wish to enter rural practice. This is an issue for Government.

The third element is the retention of those new practitioners in rural practice, ensuring that the attrition rate is low and that they have sufficient incentives to
continue their rural career. This is an issue for Government and local communities.

Although the lead time is long there is evidence to support the position that:
• Early PRCC students are close to independent practice in rural settings
• The flow of suitably experienced graduates will steadily increase
• Current numbers can stabilise the rural workforce if encouraging early experience with PRCC can be maintained and generalised
• Increased domestic student numbers and rural training places are needed to expand the rural workforce in the long term

6. Responses of the local community
I received consistent information from members of the Riverland community as to how they viewed PRCC

6.1 Support
• There is widespread support for the initiative
• The community responds with generosity to the students
• There is a will to see PRCC succeed
• Community organisations respond in practical ways, for example offering accommodation in some cases

6.2 Perceptions
• The students feel welcome in the communities
• The community perceives students as part of the workforce
• The community likes to see students caring for its members (including the close relatives of informants)
• Students add vibrancy to the local health economy
• The presence of RCCS attracts other programs

6.3 Payback
• None has yet been seen, but this is inevitable since no students have yet completed training
• The presence of 25% of all graduates in the local Sturt Fleurieu GPET Consortium is extremely encouraging and provides strong support for eventual payback
• Getting professional people into the Riverland is important, and the university aids this
• Local services in general benefit from more medical activity
• The community may be more flexible in what it sees as ‘payback’ than might have been the case in the past

6.4 Relation to other structures
• Siting RRCS in the locality is positively viewed
• There is even more scope for expanding the university connection
• Academic presence enhances the standing of the locality
• All kinds of jobs are important to the locality

6.5 Sustainability
• Access to medical care is the key issue for communities
• The community needs to nurture its existing GPs and specialists as well as recruit new graduates
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I wish to record particularly the help I received from the Faculty and administrative staff of the RCCS, including Professor Paul Worley, Dr David Rosenthal, Ms Leah Busby, Ms Heather Brimson and especially Mrs Pamela Stagg who made so many of the practical arrangements in the Riverland.
APPENDIX A (List of those interviewed)

Commonwealth Government (Department of Health and Ageing)
Sandra King, Director, GP Education, General Practice Branch, DHA
Anthony Hyland, Program Manager, RUSC, General Practice Branch DHA

State Government of South Australia
Raylene Burke, Director of Strategic Operations, Country & Social Justice Division, DHS

Flinders University of South Australia
Professor Anne Edwards, Vice Chancellor of the University
Professor Hilary Winchester, Academic Pro Vice Chancellor
Professor Lindon Wing, Dean of the Medical School
Professor John Finlay Jones, Head, Faculty of Health Sciences

Flinders Medical Centre
Dr David Badger, Co-ordinator for Streamed Studies
Dr Kevin Forsyth, Head, Academic Department of Paediatrics
Dr Mark Keirce, Head, Academic Department of O & G
Dr Ross Kalucy, Head, Academic Department of Psychiatry
Dr Anne Kupa, Chair of Medical Education Committee
Professor Louis Pelotto, Head, Academic Department of Primary Care
Professor David Prideaux, Professor of Medical Education
Mr Jack Walsh, Co-ordinator of Surgical Programs
**PRCC students**
Asma Arain
Darren Barnett
Rob Birks
Anthony Bradshaw
Anthony Ciccocioppo
Tom Douch
Sonia Hampel
Cheryl Jeffrey
Lincoln Pike
Anna Spink
Melinda van Oosterum
Rohan Williams

**Flinders Rural and Remote Community Clinical School**
Professor Paul Worley, Director
Dr David Rosenthal, Academic Co-ordinator, Renmark
Heather Brimson, Senior Administrator
Pamela Stagg, Program Co-ordinator
Dr Lucie Walters, Academic Co-ordinator, Mt Gambier

**Riverland Health Services**
Nino di Sisto, Chief Executive Officer, Riverland Regional Health Service & General Manager, Riverland Health Authority

Glenn Cooper, Chief Executive Officer, Renmark Paringa District Hospital
Addy Dunn, Chief Nurse, Renmark Paringa District Hospital
Riverland GP Preceptors
Dr Grant Baker
Dr Michael Betts
Dr Andrew Searles
Dr Kevin Stanton

Riverland Specialists
Mr Bruce Gilbert, Consultant in Obstetrics & Gynaecology
Mr John Nettlefold, Consultant Surgeon
Mr Arnold Seglenieks, Consultant Surgeon

Riverland Community Liaison Committee
Mr Stewart Andrew
Ms Josie Nelsson
APPENDIX B:

PRCC graduate students and their current employment as reported to me

1997 PRCC
Gerard Cobiac                  Rural GP Training – SFGPET region
Kate Fry                        Anaesthetics Primary Training , SA
Michelle Harris               MSF (Rural Training Obst/Anaes)
Clare Huppatz                  Rural GP Training - Cairns, QLD
Gavin Shepherd                Occupational Medicine, SA
Chris Veale                    Paediatric Training, NSW
Bill Wong                      GP Training, Army
Christine Zeigler              Paediatrics Primary Training 2003, SA

1998 PRCC
John Craven                      Emergency & Paediatrics Training, Alice Springs
Daniel Houghton               GP Training
Karen O’Brien                  GP Training
Cherie Price                    Rural GP Training – SFGPET region
Allan Nelson                   Psychiatry Training, SA
Pauline Wachtel                 Rural GP Training – GGT region

1999 PRCC
Daniel Bartlett                GP Training, Mt Isa, rural QLD
Darren Barnett                  Going to Rural GP Training, NSW
Jane Birks                      Rural GP Training – SGGPET region
Carla Eide                      Forensic Pathology Training, USA
Anne Jackson                     SHO Anaesthetics, UK
Ian McCombe                      Rural GP Training – SFGPET region

2000 PRCC
Linda Dadds                      General Year, may do anaesthetics, will go rural
Catherine Hines                Rural GP Training – SFGPET region
Mary Liston                     Rural GP Training – SFGPET region
Christen Lochert               Rural GP Training – SFGPET region
Kirsten McKenzie               Anatomical Pathology, SA
Symon Roberton                  General Year in NZ
David Shepperd                   Applied Adelaide to Outback Rural GP Training