

# A collaborative, multisectorial model to develop localised solutions to a rural medical workforce shortage

**Pamela Stagg<sup>1</sup>, Jennene Greenhill<sup>1</sup>, David Rosenthal<sup>1</sup>, Nino DiSisto<sup>2</sup>, Geoff Illman<sup>2</sup>, Lynley Jones<sup>2</sup>, Bron Marie<sup>3</sup>**

<sup>1</sup>Flinders University Rural Clinical School, <sup>2</sup>Country Health SA, <sup>3</sup>Riverland Division of General Practice

## Introduction

Some population subgroups across the world have poor health outcomes which result from insufficient access to and inequitable distribution of health services.<sup>1</sup> Contributing to the recognised poorer health status of rural and remote populations in many countries is the uneven geographic distribution of doctors resulting in a shortage of doctors in those areas.<sup>2,3</sup> Governments in many countries have tried to address this uneven distribution of doctors with the aim of improving the health status of those communities.<sup>4-6</sup>

The Australian medical practitioner workforce is unevenly distributed with disproportionately lower numbers in rural and remote areas. Dunbabin<sup>5</sup> reports that in 1998, 15.6% of medical practitioners worked in rural or remote Australia serving 28.7% of the population. In the same year, the Australian Medical Workforce Advisory Committee reported that 22.4% of medical practitioners were serving just under 30% of the population living in rural and remote areas<sup>7 p. 35</sup>. Regardless of reporting differences, the ratio of doctors to population reduces with geographical distance away from a capital city<sup>8</sup>.

Notable Australian government policy initiatives to address the uneven distribution of doctors over the past 15-20 years include, the University Departments of Rural Health, the Rural and Remote Area Placement Pilot, Post Graduate Placement Program, Regional Training Providers and the Rural Clinical School's initiative<sup>9-11</sup>. These strategies have included support for rural based education and as a result of these strategies more medical students are undertaking undergraduate and postgraduate clinical placements in community based rural settings<sup>12-18</sup>.

One such strategy, the Flinders University Parallel Rural Community Curriculum (PRCC) based in the Riverland region of South Australia was funded in 1997. The program commenced with the support of local health services, general practitioners and government as an educational strategy aimed at increasing the rural doctor workforce. Recent research suggests that over half of PRCC graduates are on a rural career path<sup>14</sup>. However, of the 82 medical students who had been provided a full 1 year placement in the Riverland only 1 graduate has returned to the Riverland as a permanent full time doctor and 2 graduates returned as registrars for 6 month rotations. This raises many questions about the strategy and importantly about how to maintain the substantial ongoing commitment of the local community. How can the PRCC contribute to attracting and retaining rural clinicians locally?

In January 2008 there were only 2 resident specialists employed in the Riverland and 4 of the 5 group medical practices had vacancies for GPs. At this time a number of factors generated concerns within the Riverland community for the sustainability of the medical workforce. These factors included the low return rate of PRCC graduates to the region; long standing difficulties recruiting and retaining GPs; the launch of South Australia's Country Health Care Plan and the extreme doctor shortage at one practice where the doctor :population ratio was 1:2362 compared to the Regional South Australian Average of 1:1130<sup>8</sup>. The number of Full Time Equivalent (FTE) doctors, vacancies and doctor : population ratios in the Riverland are shown in Table 1. These concerns led to a local government meeting to which Flinders University and local clinicians were invited.

**Table 1** Number of FTE doctors, vacancies and population ratios of Riverland medical practices in January 2008

| Medical practice | No of FTE doctors | No of FTE vacancies | Population | Ratio doctors : population |
|------------------|-------------------|---------------------|------------|----------------------------|
| Practice A       | 4                 | 4.5                 | 9449       | 1:2362                     |
| Practice B       | 5                 | 1                   | 4303       | 1:860                      |
| Practice C       | 6                 | 2                   | 7500       | 1:1250                     |
| Practice D       | 7                 | 1                   | 6977       | 1:997                      |
| Practice E       | 7                 | 0                   | 4864       | 1:669                      |
| Total            | 29                | 8.5                 | 33093      | 1:1141                     |

Following the local government meeting a working party made up of representatives from the Flinders University Rural Clinical School (FURCS), Riverland Division of General Practice (RDGP) and Country Health SA (CHSA) was formed. This group became known as “the Riverland Medical Workforce Think Tank Working Party” (the Working Party).

## Method

Participatory action research provides an opportunity for researchers and the community to work together to define a problem, take action and evaluate the outcomes of the project. Participatory action research has been well utilised by health care professionals to empower communities to make social change<sup>19</sup>. This form of research uses both qualitative and quantitative methods to gather data on social issues with an emphasis on using data collection methods which can be useful and useable to the community in question<sup>20</sup>.

In this project, the community is comprised of individual community members, medical students, interns, representatives of community groups including local government, regional development boards and industry groups which included the Rural Doctors Workforce Agency and the Sturt Fleurieu General Practice Education Training Consortium.

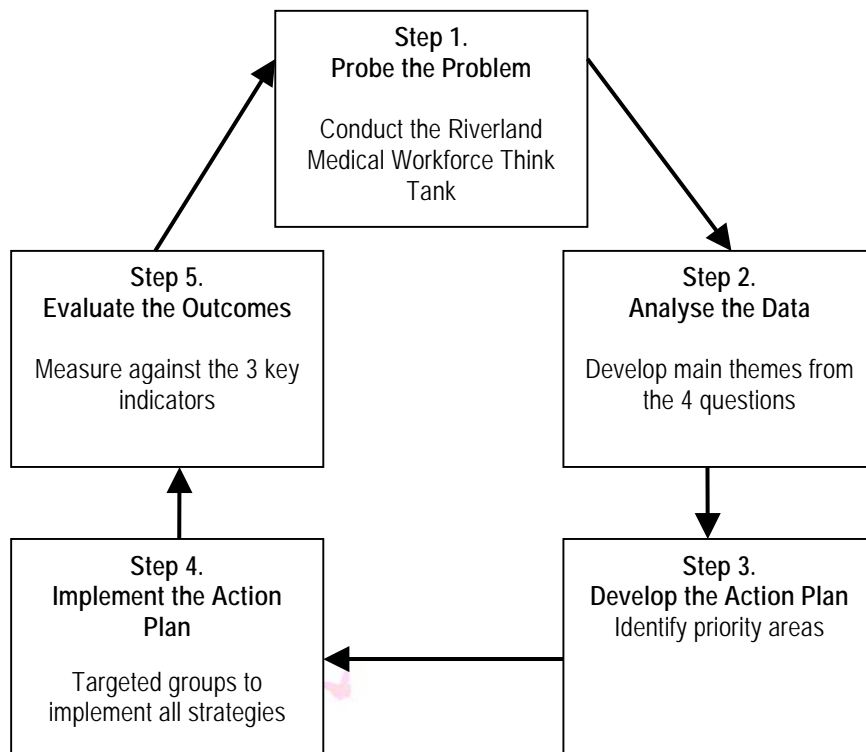
The Working Party met 8 times in the first half of 2008. During this period the Riverland Medical Workforce Think Tank Workshop (the Workshop) was conceptualised. The aim of the workshop was to bring together community members and industry groups and collaboratively answer the following two overarching questions:

- How do we strengthen the Riverland Medical Workforce through recruitment and retention?
- What needs to be added to the Parallel Rural Community Curriculum (PRCC) experience in order to attract students to practice in the Riverland after graduation?

The Working Party developed the 5 step model of participatory action research shown in Figure 1. After considering group brainstorming, and nominal group techniques, it was agreed that World Café<sup>21</sup> would provide the appropriate means to enable the attendees to probe and fully define the issues raised. The World Café technique promotes effective, active public participation and is used to engage participants in focused conversations which result in a collective intelligence, common goals and action<sup>21 p. 3-5, 22</sup>.

This World Café meeting process featured a series of simultaneous conversations in response to 4 predetermined questions. Each question was assigned to a table. Participants rotated between tables in 20 minute intervals. By rotating through the tables participants were able to probe the issues and

identify common ground in response to each of the questions. Each table had a facilitator, a co-facilitator and a scribe. The scribe documented the participants' conversations using a live Wiki (a web page that enables multiple users to have input at the same time).



**Figure 1 Riverland Medical Workforce Think Tank Participatory Action Research Model**

## Results


The 5 steps of the Riverland Medical Workforce Think Tank Participatory Action Research Model are described in detail.

### Step 1. Probing the problem

A total of 87 invitations to the Think Tank Workshop were posted. 42 people attended the Workshop which included community members and representatives from industry groups including local and state government, local medical practices, health services, medical students and junior doctors. The Rural Doctors Workforce Agency was the only industry group that could not send a representative. All participants were sent essential pre-reading to inform the discussions at the workshop.

The Workshop was conducted on July 1, 2008. The Workshop was facilitated by an experienced international educator and included presentations by the Working Party.

Current PRCC medical students were invited as participants of the Workshop and as facilitators of the World Café. In the World Café, four questions which emerged from the overarching questions identified in Step 1 were each allocated to a table for deeper probing by the participants. The table questions were:

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- Q1. What could strengthen the Riverland Medical Workforce?
- Q2. What critical experiences and trigger times might influence students and graduates to choose the Riverland to practice? (trigger times are time periods that influence career decision making, ie high school, during undergraduate or postgraduate placements<sup>23-28</sup>).
- Q3. What would the ideal Riverland medical practice look like in the future?
- Q4. What social and professional supports are valued by the Riverland Medical Workforce and help retention?

## Step 2. Analysis of the data

Data collected in the World café sessions was analysed for recurring themes which emerged from each question. The main themes from each question are presented.

### Q1. What could strengthen the Riverland Medical Workforce?

- The marketing of the Riverland through the production of a high quality DVD to increase the pool of doctors and other professionals seeking work in the Riverland was considered a high priority.
- New models of primary health care and General Practice business models need to be examined to meet the changing needs of new medical graduates, community needs and funding bodies.
- The specialist workforce is a core element in attracting the medical workforce to the region. New ways of co-appointing Specialists eg Surgeons and a Physician to the region need to be explored and support to visiting specialists needs to reflect their commitment to the rural communities.
- Retention issues include the need to recognise the importance of the medical practitioners who are already here and support them accordingly with appropriate salaries, locum relief and realistic after hours commitments.
- Barriers to retention identified included the perceived need to send children to Adelaide for quality secondary school education.

### Q2. What critical experiences and trigger times might influence students and graduates to choose the Riverland to practice? (trigger times are time periods that influence career decision making, ie high school, during undergraduate or postgraduate placements).

- Streamlining the medical education journey as a choice or option by increasing rotations available in the Riverland at all stages is required. This should include years 3 and 4 of the Graduate Entry Medical Program and more intern places.
- The Riverland specific pathway needs to be targeted or tailored to specific demographic groups.
- There is an opportunity to invite new graduates to the Riverland for a “come and try” experience in General Practice.
- It is essential to keep in touch with alumni and they should be encouraged to come back for short trips after graduation and be actively headhunted for Riverland vacancies.
- Recruitment of new practitioners to the region could be tailored to the “Stage of Life” of medical students, graduates and specialists.



### Q3. What would the ideal Riverland medical practice look like in the future?

- Both the clinicians' and the patients' views need to be considered in developing the ideal, future medical practice.
- The ideal medical practice in the Riverland in the future should have junior doctors in it.
- The new model will look different to the current model, as new graduates want to work less hours and have less on call work.
- The number of International Medical Graduates coming to rural areas will continue to increase and they bring procedural skills with them—this needs to be actively promoted, encouraged and supported.
- After hours services need to offer more effective ways of managing triage and rotations.
- Patients want to have an appointment within 24 hours, with other health services collocated in one place and shared medical records between practices.

### Q4. What social and professional supports are valued by the Riverland Medical Workforce and help retention?

- Social and professional supports need to be co-ordinated for doctors and families.
- There is a need for more inter town, inter practice support to promote social and professional interaction.
- The establishment of a mentor scheme with younger doctors assigned to retired doctors could offer support.
- Issues such as organised child care and locum relief would be of benefit.
- Access to a professional support program for doctors who get sick such as a local Dr Doc program is needed.
- Professional colleges need to support their specialists.
- Support needs to begin prior to doctors arriving in the Riverland.

### Step 3. Develop the action plan

At the workshop it was acknowledged that a small group was needed to keep momentum and drive the next steps forward. It was agreed that this group would be the previously formed Working Party which consisted of representatives of Flinders University Rural Clinical School, Riverland Division of General Practice and Country Health SA.

The first task of the Working Party after the conclusion of the workshop was to undertake a mapping process of the entire workshop proceedings. This mapping was done by deconstructing the main themes which emerged from the discussion of each question into individual responses and looking at these with all other responses such as panel responses and questions, written responses and the closing question and answer session to form an Action Plan.

The Action Plan documents the 6 priority areas identified through the mapping process. These are:

- the new general hospital redevelopment

- development of a rural clinical education pathway
- marketing Riverland health professional vacancies
- developing models promoting recruitment
- the recruitment process
- retention.

#### Step 4. Implementation of the action plan

The Working Party will bring together individuals and organisations who will collectively work on progressing local solutions to the priorities identified at the workshop. As an example of how the priority areas will be actioned, Table 2 shows Priority Area 6-Retention and the strategy, actions, lead organisation and community partners and timeframes that emerged from the mapping process.

**Table 2 Action Plan for Think Tank Priority Area No. 6- Retention**

| Action Plan for Priority Area No. 6- Retention |  |   |  |   |
|--|--|---|--|---|
| Strategy                                       | Action   | Lead Agency                               | Community Partners   | Timeframe   |
| Monitoring                                     | <ul style="list-style-type: none"> <li>• Conduct and collate findings from exit interviews and distribute</li> </ul>   | Riverland Division of General Practice    |  | Ongoing   |
| Professional Support                           | <ul style="list-style-type: none"> <li>• Develop and implement a mentoring and collegiate network</li> <li>• Investigate viability of a local locum program</li> <li>• Provide locally delivered education that meets local needs</li> <li>• Foster effective working relationships between GP's and other health service providers</li> <li>• Ensure access by registrars and IMG's to support for fellowship exam preparation.</li> <li>• Establish a female GP network</li> </ul> | Riverland Division of General Practice    | Rural Doctors Workforce Agency<br><br>Flinders University Rural Clinical School              | Dec 2009<br>Dec 2009<br>Ongoing<br>Jan 2010<br>June 2009<br>June 2009 |
| Social Support                                 | <ul style="list-style-type: none"> <li>• Coordinate social and professional supports for GPs and their families</li> <li>• Ensure that support is available to the entire medical workforce</li> <li>• Engage communities ensuring social support for the medical workforce.</li> </ul>  | Riverland Division of General Practice    | Riverland. Medical Practices,<br>Local government,<br>Service clubs                          | Ongoing<br>Dec 2009<br>Dec 2009                                       |
| Research                                       | <ul style="list-style-type: none"> <li>• Develop a programmatic research plan for FURCS</li> <li>• Undertake research on factors that influence career decision making of students</li> <li>• Foster a culture of medical education research</li> <li>• Conduct research training for clinicians</li> </ul>  | Flinders University Rural Clinical School | Riverland Division of General Practice<br><br>Individual clinicians<br>Local health services | June 2009<br>ongoing<br>ongoing<br>ongoing                            |

## Step 5. Evaluate the outcomes

Evaluation of the project commenced at the initiation of the project. The evaluation framework is built around the 6 priority areas in the Action Plan. The PAR cycle will continue as the strategies are actioned and evaluated. Evaluation will continue on an annual basis thereafter until the community is satisfied that the Riverland has a sustainable medical workforce, which will be assessed against the three key indicators below.

- Recruitment of PRCC graduates to intern, registrar or GP positions,
- Increase the ratio of GP numbers: population at Medical Practice A to equal or better than the Regional South Australian Average of 1: 1130.
- Maintain or improve the ratio of GP numbers: population at all other Riverland Medical practices to equal or better than the Regional South Australian Average of 1: 1130.

## Discussion

This paper proposes that community members and community groups can and should participate with industry partners in the recruitment and retention of the medical workforce. Communities have a valid interest in supporting their medical workforce for their own well being and the sustainability of their communities<sup>29-31</sup>. Also, communities have some degree of control in addressing some of the known barriers to recruitment and retention which include spouse or partner unhappiness, social isolation and access to and knowledge of community resources<sup>32-35</sup>. Communities can also promote and instigate known attractors to rural practice such as rural lifestyle, integration and sense of community<sup>32-37</sup>.

This paper describes a collaborative, multi sectorial model for PAR which includes the community in the recruitment and retention of rural doctors. The project is underpinned by critical theory which enables community members to generate vital knowledge to generate change. The use of the World Café to generate data was chosen because this technique encourages many voices to be heard, encourages everyone's participation, allows deep enquiry of questions that matter and encourages cross pollination of diverse perspectives<sup>21</sup>. This was essential as the participant mix included community members and industry "experts" all with valid viewpoints and we sought to discourage a typical group meeting scenario where the loudest voice gets heard.

Whilst most PAR in health, engages communities with a focus on health service provision, using PAR in the recruitment of health professionals is not common. Literature supporting community involvement in recruitment and selection of the medical workforce is scarce. In one Canadian study, physician recruitment and retention is described as a shared responsibility with the community<sup>38</sup>, the Recruitable Communities Project in the USA includes community education in its recruitment and retention strategies<sup>29</sup>. Closer to home, Fleming<sup>39</sup> and Veitch<sup>31</sup> agree that rural communities can play an important part in the recruitment and retention of health professionals. Fleming proposes that community ownership, community awareness, a multi system response and sharing knowledge are keys to successfully addressing recruitment and retention issues in rural South Australia.

Late in 2008 as a result of country health reform, the South Australian Health Care Act 2008 was passed into legislation. This Act provides for the establishment of local Health Advisory Councils (HACs) which are advisory bodies, advising the Minister on health issues related to specific groups or regions. In country areas, HACs have a mandate to ensure that the strong link between communities and their health services is maintained<sup>40</sup>. The Riverland HACs are encouraged to become the key community body for mobilising the Riverland Medical Workforce Action Plan.

## Conclusion

The Riverland Medical Workforce Think Tank Workshop resulted from concerns raised by the community for the sustainability of its medical workforce and health services. This paper presents a participatory action research approach whereby community engagement is an important strategy to address a rural medical workforce shortage. The success of the project so far has been to respond to community concerns through active, meaningful engagement and to mobilise community members, local government and industry partners to develop (for the first time) collaborative strategies to directly address recruitment and retention of medical personnel in the Riverland. The development of key indicators from the Riverland Medical Workforce Think Tank Workshop will enable the success of the project to be thoroughly assessed as the cycle of action and evaluation continues.

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## Presenter

**Pamela Stagg** is undertaking a PhD focused on the workforce outcomes of Flinders University rural medical programs. Pamela holds a Bachelor of Business degree, majoring in human resource management and marketing, and a Bachelor of Health Science Honours degree. Pamela has worked with the Flinders University Parallel Rural Community Curriculum (PRCC), based in the Flinders University Rural Clinical School (FURCS) since its inception in 1997 until 2008. Pamela has recently been appointed to the new role of Research and Evaluation Officer for FURCS. Pamela is a Fellow of the Governor's Leadership Foundation Program with the Leaders Institute of South Australia and holds a ministerial appointment with TAFESA Regional Institute Council.