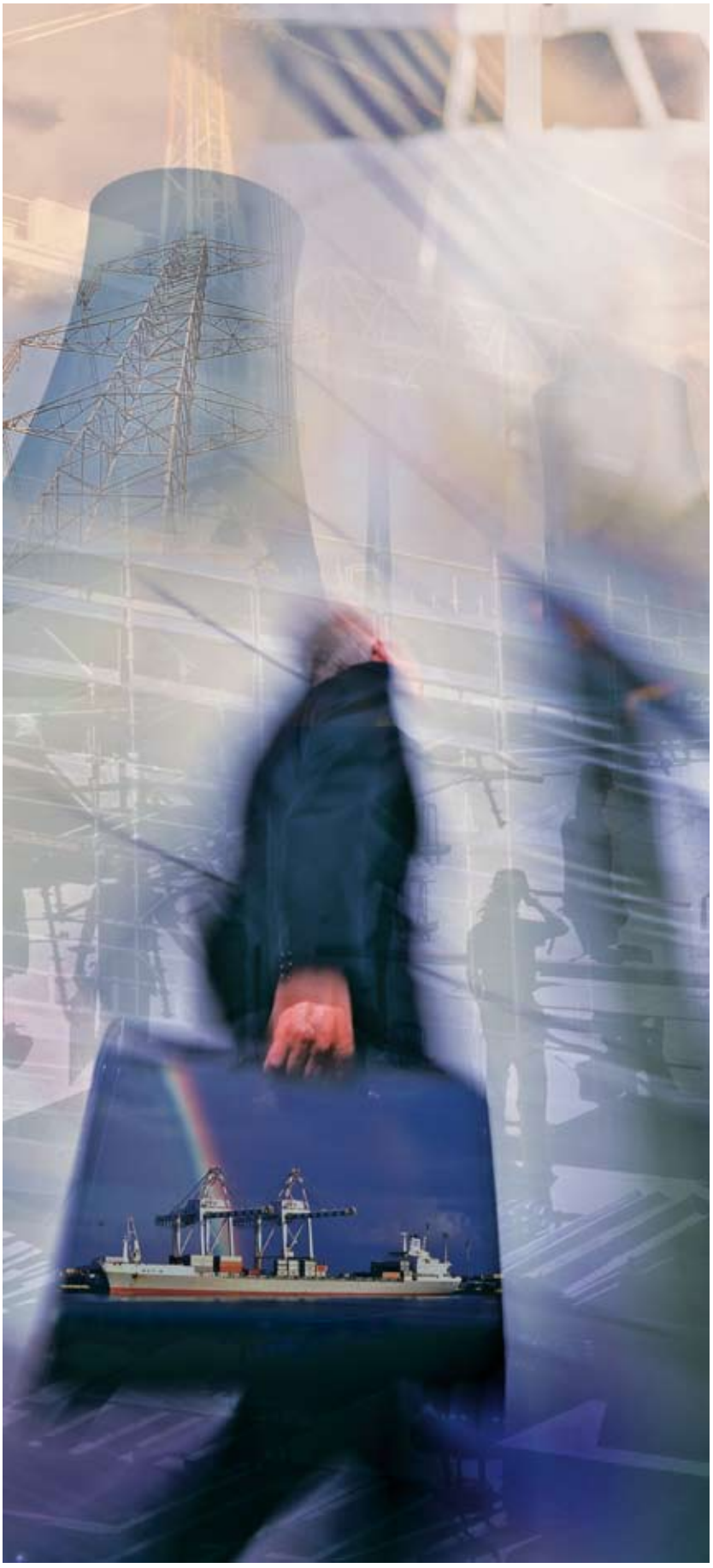

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The Economic Society of Australia warmly welcomes you to the Gold Coast, Queensland, Australia for the 37th Australian Conference of Economists.

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Supply Imbalance of Doctors in Australia: A Qualitative Analysis of the Retention and Recruitment of Rural GPs

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To be presented at the 37th Annual Conference of Economists (ACE 08) at the Gold Coast, Australia, from 30th September to 3rd October 2008.

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Supply Imbalance of Doctors in Australia: A Qualitative Analysis of the Retention and Recruitment of Rural GPs

Abstract

Australian estimates of the doctor-to-population ratios for the cities, regional and remote areas exceed the 0.71:1000 benchmark ratio of the Commonwealth Department of Health and Ageing. However, statistics are misleading because they do not account for the time and distance involved to see a doctor in the less densely populated rural and remote areas. Rural Australians have poorer access to medical services than their urban counterparts. This is a qualitative study of the problem of retention and recruitment of rural doctors.

In 2006-08, 13 in-depth structured interviews were conducted to target the three main interest groups – Federal and State governments, professional associations and training institutions (medical schools and hospitals). We analyse the results within the framework of the public interest theory and the special interest theory. Specifically we are interested in questions related to the supply of general practitioners (GPs) in rural areas: How can Australia more successfully retain and recruit local and overseas-trained doctors? What support mechanisms do rural GPs require? What is the role of non-financial incentives? And how can rural general practice be better promoted?

We found from the interviews that in the future, the provision of better financial and non-financial incentives tailored specifically to GPs working in the rural areas would be crucial to attracting and retaining more doctors in these areas. Future key initiatives include developing faster and more flexible training programmes, offering rural GPs and specialists the same remuneration rates, and providing overseas-trained doctors with a standard accredited orientation programme. GPs should also be encouraged to teach at the university level to show students the variety that exists in both general practice and rural practice.

The conclusion is that the three interest groups interviewed have a number of policy recommendations that could help to improve the current GP supply shortage situation in Australia's rural areas. The rich information that was analysed in this paper could only have been obtained from face-to-face in-depth interviews, and not from publicly accessible sources. Qualitative research is a useful complement to the traditional quantitative studies of economic issues and should be conducted more often in the future.

Keywords: *Doctor labour market, rural doctor supply, supply imbalance, general practitioners, financial incentives, non-financial incentives, Australia.*

1. Introduction

Supply imbalance is the term often used to describe a situation where the quantity of a given skill supplied by the workforce and quantity demanded by employers diverge at the existing market condition. A surplus or shortage is the result of disequilibrium between the demand and supply for that particular labour (Zurn, Dal Poz, Stilwell & Adams, 2004). There is a shortage crisis in the supply of general practitioners (GPs) in Australia's rural areas and health authorities are struggling to recruit and retain both the Australian and foreign-born overseas-trained doctors in these areas. Given the high level of concern, there is a scarcity of published research on the market for rural GPs. This study undertook 13 in-depth interviews with health organisations at the Federal and State government levels, health workforce interest groups, and medical schools to investigate their views on the supply of GPs for the rural areas relating to four issues. They are:

How can Australia successfully retain and recruit local and foreign GPs in the rural areas?

What types of support mechanisms do GPs in rural practice require?

What is the role of non-financial incentives?

How can rural practice be better promoted?

Very little is published in the English language on the supply of doctors or GPs in Australia or in other countries. A search of the Econlit database between 1970 and 2008 generated 4 citations for doctor supply and none concerned supply imbalance in rural areas. This is an indication that economists are neglecting this issue. A search of the Medline database between 1970 and 2008 generated only 7 citations for doctor supply of which 3 related to rural doctor supply but none on doctor supply imbalance in rural areas.

Most of the published material for Australia comes from government reports. The only non-governmental study on the GP supply situation in Australia is the 2000 paper by Wilkinson using the Robin Hood Index[2] first devised by Gravelle & Sutton (1998) and he had some interesting results. Wilkinson (2000) found that in Australia there were on average about 920 people per full-time GP (definition of full-time GP is based on reporting by GPs in the 1996 Census). Since the Australian Department of Health and Ageing has adopted the GP-population ratio of 0.71:1,000 as the benchmark, Wilkinson's findings would suggest that Australia had an over-supply of GPs at an average of 1.09:1,000. Indeed, his state-by-state comparisons showed that three states, South Australia, New South Wales and the Australian Capital Territory were relatively over supplied. But the remaining states of Queensland, Western Australia, Victoria, Tasmania, and the Northern Territory were relatively under supplied. Adjusted for estimated demand, the findings showed that the ACT was over-supplied by 71% while WA was under-supplied by 15% (Wilkinson, 2000). Not only was the allocation of GPs between states unequal but also it seemed that the cities were over-supplied compared to the rural areas.

Wilkinson (2000) estimates that the greatest under-supply is in Queensland with 133% more people sharing one GP. Table 1, on the geographical distribution of medical workforce in Australia, shows that the ratio of clinicians in the cities, regional and remote areas exceeds the doctor-to-population ratio of 0.71:1,000. From the available statistics, it appears that Australia has a surplus of doctors, especially GPs in some urban locations (Prideaux, 2001; Australian Medical Workforce Advisory Committee, 2000).

[2] Gravelle & Sutton (1998) have devised the Robin Hood Index to measure the unequal allocation of doctors. The index is calculated as the number of GPs per person divided by the crude mortality rate.

Table 1: Ratios of employed medical practitioners in Australia, 2000 to 2003

Occupation	FTE rate/1,000 population [(a)]									
	Major cities		Inner regional		Outer regional		Remote		Very remote	
	2000	2003	2000	2003	2000	2003	2000	2003	2000	2003
Clinicians	2.85	2.94	1.66	1.70	1.39	1.49	1.43	1.54	1.28	1.33
Primary care	1.05	1.02	0.88	0.89	0.83	0.85	0.99	0.97	1.00	0.95
Hospital non-specialist	0.32	0.36	0.18	0.17	0.13	0.19	0.21	0.24	0.21	0.30
Specialist	1.08	1.15	0.51	0.55	0.34	0.36	0.17	0.26	N/A	0.07
Specialist-in-training	0.40	0.42	0.09	0.09	0.10	0.10	0.06	0.07	0.05	N/A
Non-clinicians	0.25	0.26	0.06	0.08	0.08	0.10	0.10	0.09	0.10	0.10
Total	**3.09**	**3.21**	**1.72**	**1.78**	**1.47**	**1.59**	**1.52**	**1.63**	**1.38**	**1.43**

Source adapted from: Australian Institute of Health and Welfare, 2005, *Medical Labour Force 2003*, p. 12.
(a) Full-time equivalent rates are based on a 45-hour week.

However, we should interpret Table 1 cautiously. Although the proportion of primary care practitioners in all areas is shown to be greater than the standard doctor-to-population ratio, Table 1 does not tell us the time it takes or the distance an individual has to travel to see a doctor in the less densely populated regional and remote areas. In the 2005 Australian Institute of Health and Welfare study, 79.2% of medical practitioners reported providing services to 66.3% of the total population (mostly in cities), with the remaining practitioners distributed across the remaining 33.7% of the population (mostly non-urban). Hence, because the regional sections of Australia cover a vast geographical area, it is difficult to ascertain that the rural communities are adequately serviced.

More seriously, Table 1 shows that doctor supply in hospitals is grossly inadequate across the board. The ratio of hospital non-specialists to the population in all areas is well below the standard doctor-population ratio. In 2003 hospital non-specialist clinicians were employed at the ratio of 0.36:1,000 in the major cities, 0.17:1,000 and 0.19:1,000 in the inner and outer regional centres respectively, and 0.24:1,000 and 0.30:1,000 in the remote and very remote areas respectively. Hospital non-specialists are the interns and residents (doctors in their first 2-3 years of practice after graduating) but would also include hired non-specialists

for outpatients or emergency rooms. The findings of Wilkinson and the Australian Institute of Health and Welfare support the fact that rural Australians have poorer access to medical services than their urban counterparts. Not surprisingly, most doctors would prefer to work in urban areas with better social and professional advantages, including opportunities to increase earnings by working both in the public sector and in private practice (Adams & Hicks, 2000).

1.1 Current Initiatives

Certainly, there are efforts to retain and deploy doctors in the rural areas. They include: (1) decentralising the location of training such as setting up regional medical schools e.g. in Townsville and Wollongong (2) increasing university enrolment quotas to ensure the most peripheral areas are represented among medical students and (3) making rural work experience compulsory during medical training (Van Lerberghe, Conceicao, Van Damme & Ferrinho, 2002). Innovations also exist to improve the provision of rural medical services. One example is the creation of a new health profession in Australia: the nurse practitioners. These are registered nurses with extensive clinical experience, who have studied for extra educational qualifications to enable them to work autonomously in an expert nursing and midwifery role. As a start, in September 2006 some nurse practitioners commenced work in aged care in the ACT (Doherty, 2006). Also there are moves to introduce another new health profession in Australia, following the example in the USA. The shortage of physicians in the 1960s led to the emergence of physician assistants who are licensed to practice medicine under the supervision of physicians. They have made a considerable contribution in the USA by working in rural areas which otherwise would not have received any care at all.

An important contribution of this paper is that it reports the research based on qualitative research methods. In 2006-08 we collected primary information from 13 in-depth

structured interviews with stakeholders in the policy-making area relating to the supply of rural doctors in Australia. This qualitative study is part of a larger research in which we also conducted a questionnaire survey of 436 GPs in Queensland, NSW, Victoria and the ACT, as well as an analysis of the information in the Medical Directory of Australia.

So far there is no published economic research that is based on qualitative analysis. This is a serious omission as qualitative methods are particularly suited to gaining access to health workforce experts who could provide us with a working insight into the issue, and are invaluable as a supplement to quantitative methods based on published data. The advantage of in-depth interviews is that respondents are encouraged to talk freely and can be asked supplementary questions (Veal, 2005). Personal contact also enables us to ask sensitive questions the answers to which would normally not appear in publicly accessible publications.

2. Methods

2.1 Interview Sample

The interview sample was a convenience sample of 13 representatives of 10 health workforce agencies and associations, State and Federal Governments, a hospital, and medical schools interviewed from August 2006 to January 2008. The names of the organisations, information about the interviewees and type of interview conducted, and the interview dates are listed in Table 2. In-depth interviews were undertaken in the eastern Australian states of Queensland, Victoria and the ACT. These locations were chosen for two reasons. First, the majority of the population live in the eastern states of Queensland, Victoria and NSW. Second, there were distance and cost constraints. However, efforts were taken to ensure the sample covered urban and rural based GPs and organisations, and female and male

interviewees. It must be noted that representatives of the Australian Medical Association (AMA) had refused to participate. The School of Economics Ethics Committee at The University of Queensland approved the study.

Table 2: Details of conducted interviews

Organisation	People interviewed	Interview method and date
Federal government		
Health Workforce Queensland (HWQ)	1 – Data/Research Manager	Face-to-face (25 August 2006)
Commonwealth Department of Health and Ageing	3 – Director of Workforce Supply Policy – Director of General Practice Education and Training Management Unit – Director of GP Training and Incentives Unit	Face-to-face (21 November 2006)
State government		
Queensland Department of Health	1 – Manager, Central Zone Management Unit	Telephone (10 September 2006)
Victorian Department of Human Services	1 – Manager, Workforce Planning	Face-to-face (28 September 2006)
Associations		
Queensland Divisions of General Practice (QDGP)	1 – Policy Officer	Face-to-face (5 May 2007)
Rural Doctors Association Queensland (RDAQ)	2 – Rural Medical Registrar – Rural GP	Telephone (11 and 16 October 2007)
Royal Australian College of General Practitioners (RACGP)	1 – Urban GP	Telephone (15 January 2008)
Hospital		
Mater Hospital (Queensland)	1 – Urban GP	Face-to-face (6 December 2007)
Medical schools		
The University of Queensland Medical School	1 – Head of School	Face-to-face (26 May 2007)
Centre for Medical and Health Sciences Education (Monash University, Victoria)	1 – Lecturer, Academic Support MBBS Assessment	Face-to-face (28 September 2006)

2.2 Data Collection and Analytical Method

For this study, the interviews were in-depth and structured and generally of one hour duration. With the permission of the interviewees, all interviews were tape-recorded and were subsequently transcribed verbatim. While nine interviews were conducted face-to-face, four were conducted by the telephone because the interviewees either lived too far away or did not have time for a face-to-face interview.

Each respondent was asked the same questions and answered each question in the same order as the other respondents. This ensured that the variations in the answers would be attributed to genuine variations and not to differences in the manner or order of asking the questions. The information from the interviews was invaluable because such qualitative data that was gathered firsthand would not be found in the published material.

Careful judgement was made on what interview data was meaningful and what was not; and the information was analysed using a manual method of deductive analysis (Patton, 1990). Information was first aggregated and processed; and any patterns that emerged were then matched to the research questions. This matching process constituted the deductive analysis of the interview data. The method of finding patterns and themes involved looking at each interview transcript and analysing the information in a back and forth type manner (Patton, 1990). The results of the interview analysis are presented in Section 3. The next section presents the framework used to analyse the information obtained from the interviews.

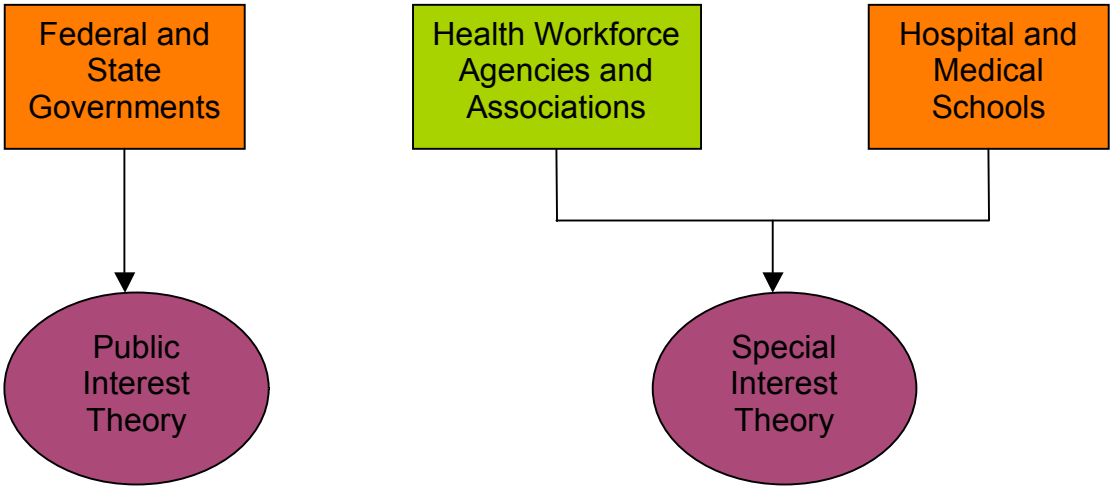
2.3 Analytical Framework

For the analytical framework, we used the public interest theory and the special interest theory. Briefly, the public interest motive arises from market failure and regulations exist in the society's interest to promote equity and efficiency in the delivery of healthcare

(Folland, Goodman & Stano, 2004; Santerre & Neun, 2004). In contrast, special interest theory views regulation as an outcome of political lobbying to obtain favourable legislations; they are political favours obtained by the rent-seeking behaviour of special interest groups (Folland *et al.*, 2004; Santerre *et al.*, 2004).

Since the role of the government is to look after the public interest, this can sometimes clash with the self-interests of health workforce agencies and associations, hospitals and medical schools. This is because special interest groups are usually concerned with issues of a more specific nature that are only important to their members. Therefore, it is likely that disagreement and even conflict can arise in such an environment. This analytical framework is shown in Figure 1 below.

Figure 1: Analytical framework for interviews



This framework is appropriate for analysing the interview data collected from the three different groups of stakeholders:

(1) The Federal and State governments *(employers of the Australian medical workforce)*;

(2) The health workforce agencies and associations *(lobby groups and/or unions representing the Australian medical workforce)*; and

(3) The hospital and medical schools *(trainers of the Australian medical workforce)*.

These groups play different roles in the Australian health system and pursue different goals. The role of the Federal and State governments is to allocate funding and resources; and set health policies, standards and regulations. Where possible, governments would try to minimise costs and maximise value for money. The role of the health workforce agencies is to look after their own self-interests, and the interests of the workforce groups they represent. They are positioned to lobby governments and influence policy-making. Hospitals and medical schools are responsible for training the medical workforce and often lobby for more funding and resources to train the growing number of medical students and junior doctors.

3. Results

Table 3 is a synopsis of the interview results relating to the four issues that are discussed in Section 4:

- Retention and recruitment of rural and overseas-trained doctors (Section 4.1);
- More support for GPs in rural general practice (Section 4.2);
- Role of non-financial incentives (Section 4.3); and
- Promoting rural general practice (Section 4.4).

3.1 Summary of the Results

The key statistics obtained from the interviews are provided below.

- At least 50% of organisations think that current incentives to attract GPs to rural areas vary from state to state and future incentive policies should be consistent.
- According to 40% of organisations, to encourage GPs to relocate to rural areas, governments should provide incentives that include paying part of their indemnity insurance and providing them with fast, streamlined and flexible training.

- All three interest groups are aware of the literature carrying the view that medical students who grow up in rural areas are more likely to work as GPs in these areas.
- At least 50% of organisations believe that students trained in a rural medical school are more likely to practice in a rural area after graduation.
- At least 30% of respondents argue that it is not essential to have a rural background, but medical students must be exposed to rural areas as part of their training in order to acquire adequate rural clinical skills.
- Bonding students to the rural pathway is seen as a good initiative by 50% of respondents.
- At least 30% of organisations concede that rural practice remains vulnerable owing to insufficient recruitment of locally trained doctors.
- While 50% of organisations agree that Australia is too heavily reliant on overseas-trained doctors, all three interest groups (70% of respondents) hold to view that each country be self-sustaining with respect to its own medical workforce.
- At least 40% of groups agree that GPs and specialists should be paid the same salaries.
- One policy suggested by 40% of organisations is that if a doctor spends five years in a rural area, then he/she should be given preference for enrolling in specialty colleges.
- All three groups (70% of respondents) were adamant that while some GPs are responsive to financial incentives, non-financial incentives are more crucial in rural areas.
- All three interest groups suggest that when deciding their employment location most GPs tend to compare financial incentives against non-financial incentives.
- All three interest groups (80% of organisations) agree that there is not enough recognition for GPs, and that the GP shortage can only be solved if general practice is made more attractive to students, especially those from the rural background.

Table 3: Summary of key issues raised by government departments, associations, hospital and medical schools

Questions	Overall for Federal Government	Overall for State Government	Overall for associations	Overall for hospital and medical schools
GP support	Support, orientation, and competitive pay important for rural foreign doctors.	1) GP remuneration rates must be similar to specialist rates. 2) Need to be supportive of rural GPs.	1) Remuneration for rural doctors needs to be doubled. 2) Proper support and orientation are crucial for foreign GPs.	There are disincentives to specialising, such as a loss of income while training.
Recruitment and retention of rural and overseas-trained doctors	1) There are ethical issues with Australia recruiting from undeveloped countries with their own supply problems. 2) Australia should have a self-sustaining medical workforce. 3) Proof recruiting students from rural areas can boost future rural supply.	1) Australia should recruit foreign doctors but not from undeveloped countries. 2) Bonding both local and foreign medical students is a good strategy. 3) Rural medical schools are a good idea to increase rural supply.	1) Having a rural background and rural training are very important. 2) Better to train students locally and make the job more attractive. 3) Restrict provider numbers to GPs who are willing to work in areas of workforce shortage.	1) Students who grow up in rural areas are more likely to be GPs in rural areas. 2) If students have an enjoyable experience in rural areas, they are more likely to practise there when they are GPs. 3) Rural-bonded scholarships and rural training encourage students to go back and work in rural areas.
Non-financial incentives	1) Lifestyle basics are crucial in rural areas, like family support, childcare, car, housing, education, and locum relief. 2) Current financial and non-financial incentives are not enough or consistent across Australia.	1) Non-financial incentives are more important than money. 2) Key incentives for young and rural GPs are proper housing, support, adequate leave, relocation subsidies, education/professional development, ability to specialise, and staying close to family.	1) Incentives should be consistent. 2) Non-financial incentives young doctors consider are work hours, educational support, and gaining recognition for teaching. 3) Other incentives are means of sustaining rewarding relationships with patients, opportunity to work in teams and use new IT.	Financial incentives are weighed up against non-financial incentives such as training, lifestyle, family, leave, support, and orientation.
Promotion of rural practice	Supply exceeds demand for GP training.	Government should reward rural GPs with specialty training positions.	Shortage can only be solved if general practice is promoted as an attractive career and there are enough financial and non-financial incentives, particularly for rural and female doctors.	Need to promote lifestyle and job benefits of rural practice, which has more variety and is more interesting.

Colour Key:

Blue – GP support Green – Recruiting from undeveloped countries Violet – Rural background/rural medical school

Brown – Bonding Red – Incentives Orange – General practice promotion

4. Discussion

With reference to the GP supply in the Australian rural areas, there was consensus among the stakeholders on some issues but considerable differences on others. We examine the degree of agreement or disagreement between stakeholders and illustrate with quotations and examples given by interviewees; but their names remain confidential. This study is limited to the extent that we were unable to obtain the views of the AMA.

4.1 Retention and Recruitment of Local and Overseas-Trained Doctors

Four aspects of the retention and recruitment of GPs to the rural areas of Australia will be discussed. Recruitment of local doctors to the rural areas will be examined first. Secondly, we look into the consensus of the three interest groups that there is strong evidence showing students from a rural background are more likely to work in the rural areas. Thirdly, rural-bonded scholarships will be discussed; and lastly the recruitment of overseas-trained doctors.

Recruiting Local Doctors to the Rural Areas

The unsuccessful retention of GPs in the rural areas of Australia is a concern, even though between 2002 and 2005 there was an increase of 200 doctors in these areas (Health Workforce Queensland interview, 2005). Rural general practice actually offers a more interesting and challenging climate in comparison to urban general practice because rural GPs have the opportunity to perform procedural work, are able to provide a greater breadth of services, and have a connection with the community. Thus, general practice is often seen to be fulfilling regardless of the work location.

"If you look at it from a purely objective point of view, I have to say rural practice has a much more interesting variety…bearing in mind that the hours are very long and you don't have so much support." Commonwealth Department of Health and Ageing

One downside is that GPs in rural areas have to do most of the hospital work themselves because rural hospitals do not have enough staff. The main two ways that the Federal Government can entice GPs to the rural areas is by providing rural GPs with numerous incentives (Section 4.3) and by promoting rural general practice as an attractive career (Section 4.4) to encourage them to stay for a longer period of time. Therefore:

"There's been a lot of marketing and promotion of…rural [practice]. My view is…we [should] focus on the lifestyle benefits and the fact that city practice is going to be less and less lucrative." Commonwealth Department of Health and Ageing

At least 50% of organisations think that current incentives to attract GPs to rural areas are dissimilar from state to state and that future policies should be consistent.

"A lot of Queensland doctors have gone to NSW because of better financial deals and working conditions. There is also more recognition there and the ability to do the work you want to do in a supportive environment." RACGP

To attract doctors from interstate, the Queensland Government has to highlight lifestyle factors because the current remuneration and employment conditions are likely to be similar throughout Queensland. According to 40% of the organisations, to encourage GPs to relocate to rural areas, governments should provide incentives such as paying part of their indemnity insurance and providing them with fast, streamlined and flexible training. For example:

"We do about 40 days a year continuing medical education and access to that is generally now subsidised, and includes accommodation, travel…and from our evaluations, they say it helps keep them in rural practice." HWQ

The current rural retention payments are particularly prized:

"[These] are incentives based on [the GP's] location. In more remote areas a GP can receive additional payment [of] up to $25,000 per year." HWQ

However, the RDAQ argues that this amount should be doubled because there are significantly more costs to training and living in a rural area. In addition to rural retention

payments, the Federal Government is currently offering financial incentives such as relocation grants, housing assistance, education grants, and a HECS-HELP reimbursement scheme:

"This is to go and practise in or train in around 3-7 locations, and for each year that [GPs are] in one of those areas, they get a fifth of their HECS-HELP debt reimbursed." Commonwealth Department of Health and Ageing

Importance of Rural Background

All three interest groups are aware of the international literature carrying the view that medical students who grow up in rural areas are more likely to work as GPs in these areas. All three interest groups (50% of organisations) also believe that students trained in a rural medical school are more likely to practice in a rural area after graduation. Hence, a strategy is now being implemented to attract more medical students from rural areas and to establish rural medical schools.

"Just saying we are going to increase the [medical school enrolment] quota by…20% isn't going to solve the problem unless you are…targeting…students from rural backgrounds. The longer the contact is in a rural area the more it would encourage [students] to think more positively [about that area]." Monash University

However, even though there is broad agreement on this issue amongst the three interest groups, some specific respondents such as the RACGP, disagree with the above views. In fact, 30% of respondents argue that it is not essential to have a rural background, though they do believe that medical students must be exposed to rural areas as part of their training in order to acquire adequate rural clinical skills.

"For example, one community in Kingaroy [in Queensland] organises medical students to go to rural festivals where they are also taken to rural hospitals and doctors talk to them. This is quite a good initiative." Queensland Health

This is not to say that these respondents are against the idea of establishing rural medical schools. Rather they are concerned with the quality of intern training if these rural schools should place more pressure on the existing limited capacity of the hospitals. For instance:

"Queensland Health has [this] problem with the [graduates] that are…coming out of James Cook University. They…have to figure out how they are going to employ them [and where they are going to] place them and train them." HWQ

Bonding of Rural Medical Students

Bonding is a rural scholarship programme whereby assistance is given to medical students on the condition that they work for a certain period in the rural areas when they graduate. While the issue of bonding students to the rural pathway is somewhat controversial, it is generally seen as a good initiative by both the government and medical schools (50% of organisations).

"Now that we have more rural-bonded scholarships…that would encourage the recruiting of rural GPs; it would encourage more students once they finish their training to go back into rural areas." Monash University

From a different perspective, the HWQ argues that schools can dictate rural medical practice:

"They can force graduates into rural areas because of bonded admission conditions. Griffith University is offering rural bonded places in its medical course." HWQ

Another kind of concern comes from the Queensland Government, that is, the practice of bonding gives students the impression that they are being locked into a rural practice. This notion then may have the opposite effect of reducing the attractiveness of rural practice.

"Doctors [can] also pay the bond and then go and live where they want. So we have to be realistic about how effective bonds are." Queensland Health

Victoria has already tried to bond international medical students for several years. These students are seen to be ideal candidates for bonding because they cannot obtain the Medicare provider numbers to practise in areas other than the rural areas. Regardless of the future effects of bonding, at least 30% of organisations concede that rural practice remains vulnerable owing to the insufficient recruitment of locally trained doctors.

Recruitment of Overseas-Trained Doctors

In 2005, 28.5% of the rural medical workforce had obtained their medical qualifications overseas (Health Workforce Queensland Interview, 2005).

"Initially, Australia brought in doctors from the U.K. and Ireland. Recently, we have been bringing in more Indian doctors. In the really remote areas, the number of new recruits who didn't train here would be more like 90%." RDAQ

The organisations interviewed had mixed opinions on the strategy of recruiting overseas-trained doctors to solve the supply shortage. While 50% are in agreement that Australia is already too heavily reliant on overseas-trained doctors, all three interest groups (at least 70% of respondents) hold to view that each country should be self-sustaining with respect to its own medical workforce. The RDAQ has raised the point that western countries are often accused of stealing doctors from developing countries:

"There are places like South Africa that have had a sound health system so far. We can't continue taking doctors from these countries that have more need than us. In these countries, the ratio of doctors to patients is…1:13,000. So, I definitely think that Australia needs to stop stealing doctors from other countries." RDAQ

This does not underestimate the importance that overseas-trained doctors have played and will continue to play in the rural medical workforce. According to the Mater Hospital, the State governments and the medical schools, the graduates from some countries have particularly good training and experience in specific medical areas.

It seems certain that no matter what the GP supply situation looks like in 10 years time, Australia will continue to rely on foreign doctors to fill the gaps in rural supply because:

"There is a high retirement rate…among GPs. Population…is going up." RDAQ

Since most overseas-trained doctors have to work in an area of workforce shortage, all three interest groups agree that it is important to look after them properly including:

"Giving them one month paid orientation…supporting families…In Queensland…a doctor might arrive in Brisbane…and may be sent out to Mt. Isa, given one day orientation, and then be sent to Cloncurry. We…took a survey and support was what the…GPs were asking for. 70% of them had not undergone any orientation." HWQ

The orientation should be a standard accredited programme, comprising specific orientation to rural practice and to the Australian healthcare system. They should be paid at internationally competitive pay rates, allowed to enrol in the GP fellowship preparatory programme, and given help to understand the Australian culture. In addition, the HWQ believes that after working in rural locations for three years they should be granted permanent resident status of citizenship, provided that they obtain their fellowship during this period.

4.2 More Support for GPs in Rural Practice

All three interest groups agree that there should be support for the working environment of doctors. According to the Federal Government, future health workforce strategies should be multi-pronged:

"[We] need to consider the supply…those people entering the workforce. [We] need to consider retention. [We] need to consider [the] participation rate, so how much work do we get out of each individual. We need to consider…exit strategies that would prolong the participation rate or their involvement, and then we need to look at the demand side. How do we address issues of public…health so that the supply we have is sufficient to meet the [demand]?" Commonwealth Department of Health and Ageing

Medicine is an internationally competitive market and the medical workforce is mobile. Therefore, doctors will gravitate to good conditions and high incomes. In an opinion that exhibits their self-interest, the health agencies believe that the Federal Government should provide better tangible rewards for GPs to want to stay in the rural workforce. For example:

"There needs to be financial support but also community understanding and the right messages coming out about the importance and benefits of strong General Practice to health outcomes." RACGP

Clearly, offering rural GPs adequate remuneration is the first step to successfully implementing any strategy. General practice is private practice, and funding for rural GPs comes through the Medicare Benefits Schedule (MBS) on a fee-for-service basis, and practice incentive payments, which are allocated only to rural practices or those employing a nurse. According to the Federal Government, these payments have been used successfully to improve the quality of care provided to patients because they target areas like innovation. The State Government and health workforce interest groups (40% of organisations) agree that GPs and specialists should be remunerated at the same rates as shown by the quote below.

"I think the MBS rates need to be looked at, how [GPs] are remunerated…against specialist doctors [who] receive higher rates." Victorian Department of Human Services

All levels of governments do not always share the same interests. In this case, the State governments are expected to act in their own self-interests including looking after healthcare in their own states and ensuring re-election to political power. Governments must also establish GP networks and mentor programmes. A further rollout of telemedicine in remote areas should also be a priority. In addition, allowing GPs in private practice to work in the public sector is important. Other crucial factors include locum support, local community support, and adequate IT support such as having broadband Internet access. Other than this:

"If you provide someone with accommodation and a nice practice, they will come with little cost." RACGP

The HWQ also argues that at some stage in their career, rural GPs may want to return to the cities because working in the rural areas may hamper their access to specialty training. One of the policies suggested by both the government and health workforce interest groups (40% of organisations) is that if a doctor spends at least five years in a rural area, then he/she should be given preference for enrolling in the specialty colleges.

4.3 Role of Non-Financial Incentives

All three interest groups (at least 70% of organisations) were adamant that while some GPs are responsive to financial incentives, non-financial incentives are more crucial in rural areas. All incentives should also be re-evaluated from time to time due to a constantly changing health system. Furthermore, all three interest groups suggest that when deciding their employment location most GPs tend to compare financial incentives against non-financial incentives. According to the QDGP, key non-financial incentives include quality of life, support for families, and having access to good schools for the children. However in terms of profession-related incentives, the important factors include:

"A means of sustaining positive and rewarding relationships with patients, a means of providing intellectual stimulation…a role in generating relevant new knowledge through practice-based research, a chance to use new…technology to deliver and improve care, [and] an opportunity to provide effective practice administration that communicates with patients and networks with other practices." QDGP

Young doctors, in particular, tend to make decisions based on such benefits as leave entitlements, flexible working hours, and gaining recognition for teaching; and such costs as the extent of social isolation.

4.4 General Practice as an Attractive Career Option

All three interest groups (80% of organisations) agree that there is not enough recognition for GPs, and that the GP shortage can only be resolved if general practice is made more attractive to students. The general perception among medical students is that the GP is on the bottom rung of the specialty ladder. Most graduates tend to prefer the other specialties in their career options with the result that:

"If you fill up [these] ones first, then there are not many left [to recruit to] the GP places." Commonwealth Department of Health and Ageing

Furthermore, rural GPs are often seen by their city colleagues to be less successful. Therefore, even rural-born GPs may want to work in the cities. Each interest group is blaming the others for not promoting rural general practice. According to the workforce agencies:

"General Practice is not valued especially in the universities…Universities only pay lip service to Rural Medicine, and…are not doing enough to…promote it." RDAQ

However, both the Federal Government and the medical schools are quick to refute this view. Universities such as Monash report that they are using GPs as tutors in case-based learning and clinical skills, such that GPs can impart their own experiences to students. Ultimately, if students can have a feel for the variety of work GPs do especially in rural practice, they may want to become GPs.

5. Conclusions

The results of this qualitative investigation suggest the three interest groups interviewed have a number of policy recommendations that could help to improve the current GP supply shortage situation in Australia's rural areas. These recommendations are not found in any published research. Whilst there was agreement on many policy suggestions, there was also disagreement between the interviewed organisations on some specific policies. This study focused only on the experiences of GPs, and is limited in its capacity to make inferences to the wider medical profession. Therefore, further qualitative investigation is necessary to expand and develop these initial findings and research to other medical professional groups such as surgeons, obstetricians and psychiatrists to gain insight into their rural experiences.

5.1 New Policy Recommendations

To Retain and Recruit Local and Overseas-Trained Doctors in the Rural Areas

Currently, the Federal Government is implementing policies such as establishing rural medical schools in Townsville and Wollongong, and increasing the medical school enrolment quotas to recruit more local graduates to the rural areas of Australia. All medical students are now also exposed to rural areas as part of their training so they can acquire rural clinical skills. Bonding rural students, the effects of which will not be known for some time to come, is one of two controversial strategies that are currently in place. The other policy is the recruitment of overseas-trained doctors to fill the gaps in rural supply.

However we found from the interviews that in the future, the provision of better financial and non-financial incentives tailored specifically to GPs working in the rural areas would be crucial to attracting and retaining more doctors in these areas. Future key initiatives should include developing faster and more flexible training programmes, doubling the value of the rural retention payments, subsidising indemnity insurance, establishing GP networks and mentor programmes, giving rural GPs preference for specialty training enrolment, and allowing private practice GPs to also work in the public sector. Since 50% of organisations agree that overseas-trained doctors will continue to play an important role in the rural medical workforce in the future, it is necessary to provide them with a standard accredited orientation programme, pay them internationally competitive pay rates, give them the opportunity to enrol in the GP fellowship preparatory programme, help them to understand the Australian culture, and grant them permanent resident status of citizenship.

Role of Non-Financial Support and Rural General Practice as an Attractive Career

With respect to financial incentives, all three interest groups agree that in the future both rural GPs and specialists must be offered the same remuneration rates. However in terms of the recruitment of GPs to the rural areas, all three interest groups were clear that non-financial incentives are actually more important than financial incentives. Finally, a key strategy to improve the attractiveness of rural practice is to encourage more GPs to teach at the university level so they can show students the variety that exists in both general practice and rural practice.

Certainly the rich information that was analysed in this paper could only have been obtained from face-to-face in-depth interviews, and not from publicly accessible sources. Thus, qualitative research is a useful complement to the traditional quantitative studies of economic issues and should be carried out more often in the future.

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