

PROGRAMS AND POLICIES TO REDISTRIBUTE PHYSICIANS TO HIGH NEED AREAS - AUSTRALIA

Introduction

1. Medical workforce distribution is a dynamic area of policy development in Australia. Over the past decade Australia's medical workforce has moved from relative oversupply with a maldistribution of doctors between metropolitan, rural and remote areas to the current situation of overall shortage.

2. Factors involved in this change include changing demographic patterns and continued growth in demand for medical services as well as more specific changes occurring in the medical profession such as the trend towards shorter working hours and the increasing feminisation of the workforce.

3. The last decade has seen the introduction of a range of policies designed to improve the distribution of the workforce and support practitioners in rural and remote areas. More recently the policy focus has been broadened so as to take into account emerging workforce shortages in regional and outer metropolitan areas. While some of the initiatives that have been implemented begin to take effect immediately, others have long lead times and will take some years for the benefits to be fully realised.

4. To provide an understanding of the context of Australian policies and programs to redistribute the medical workforce the paper provides a brief description of:

- the Australian health system; and
- the changing structure and distribution of the Australian population.

5. The main body of the paper then provides an overview of

- the current distribution of physicians in Australia and the influences on that distribution;
- the policies and programs introduced by the Australian government over recent years to effect a more equitable distribution of the medical workforce; and

- the effectiveness of these policies and programs.

The Australian Health System

6. Under Australia's federal system of government, health funding is provided by both the Australian (central) Government and the six State and two Territory governments. The Australian Government funds the two national universal subsidy schemes - the Medicare Benefits Scheme (MBS) which subsidises out of public hospital medical expenses on a fee-for-service basis, and the Pharmaceutical Benefits Scheme (PBS) which subsidises out of public hospital pharmaceutical expenses. The Australian and State/Territory Governments jointly fund the State-run public hospital system, which provides universally available free hospital care.

7. In terms of the medical workforce, the Australian Government is responsible for the university sector, general practice (primary care practitioners) and general practice training. Registration and regulation of medical practitioners is a function of the State governments and training of specialists (the non-primary care practitioners) occurs to a very large extent in the State-run public hospitals. On completion of vocational training most medical practitioners in Australia work predominantly in private practice, with their fees fully or partially offset by the rebates through Medicare.

8. The period of undergraduate medical training varies across medical schools, with an increasing number offering four-year graduate entry degrees rather than the traditional five or six-year undergraduate degree. Upon completion of their university training, graduates generally work as interns in generalist positions within the hospital system for two years before entering a specialist or general practice vocational training program. The length of vocational training programs is from three to seven years, with fellowship of the relevant College granted on successful completion of all aspects of the program. Doctors are usually not able to access the Medicare system unless they are undertaking vocational training or have obtained fellowship.

Australia's demographics

9. Australia has one of the most urbanised and coastal hugging populations in the world with 66% of the population living in the capital cities and 85% living within 50 kilometres of the coast. The result is an increasingly sparsely populated interior. Of the 34% of Australians who live in regional and remote areas, the majority live in large regional towns of more than 20,000 people or along the coast. Only 3% live in remote locations, a significant proportion of which are Aborigines or Torres Strait Islanders.

10. Australia's population is also ageing. In 2001 more than 12% of the population was aged over 65 years and this is expected to increase to 18% by 2020.

11. Major population growth over the last decade has occurred in outer metropolitan, inner urban and coastal areas. This growth has not been uniform across regions or across the lifespan:

- outer metropolitan areas have much younger populations with more than 22% aged under 15 years and only 7% aged 65 years and over;
- young adults (18 –34 years) dominate inner urban areas with less than 10% of the population aged less than 15 years; and
- coastal areas have high proportions of older people with many east coast communities having in excess of 16% of their population aged over 65 years.

Distribution of physicians in Australia

Overall distribution trends

12. According to the report *Australian Medical Labour Force 2001* there were just over 48,000 medical practitioners registered and in clinical practice in Australia of whom:

- 44% were general practitioners;
- 34.5% were specialists;
- 11% were specialist-in-training; and
- 10.5% were hospital medical officers.

13. Generally the medical practitioner to population ratio worsened and the hours doctors worked increased as regional populations lessened and became more dispersed. The age of practitioners also decreased with increasing remoteness.

Table 1: Geographic comparison of doctor to population ratios, average hours worked per week and average age of clinician (based on by Australian Standard Geographical Classification Remoteness Areas)

Australian Standard Geographical Classification	Doctor :100 000 population	Average hours per week	Average Age (years)
Major Cities	292	45.1	46.1
Inner regional	165	46.6	46.4
Outer regional	135	47.1	45.5
Remote	114	48.2	43.0
Very remote	111	52.6	42.6
Australian average	275	45.4	46.1

Source: Australian Institute of Health and Welfare 2003:10-11

Distribution trends for general practitioners and specialists

14. Within this overall picture, general practitioner and specialist workforces are distributed somewhat differently. Because of their primary care role, general practitioners are more evenly distributed across the continent than their specialist colleagues (Table 2 below).

15. Specialists are based predominantly in the capital cities and major regional centres. In 2001, more than half of the practitioners in the ‘Major cities’ were specialists or specialists-in-training.

Table 2: Geographic comparison of medical practitioners per 100 000 population

Occupation	Major Cities	Inner regional	Outer regional	Remote	Very Remote
All Medical practitioners	292	165	135	114	111
General Practitioners	118	92	85	76	81
Specialists	108	48	30	16	7
Specialists-in-training	36	9	8	5	1

Source: Australian Institute of Health and Welfare 2003:10-11

16. A number of regional and remote areas have difficulty maintaining a minimum range of specialist services. For these communities specialist medical care may be provided on an outreach basis or by the patient travelling to a larger regional centre or the State capital. In 2001 nearly 800 metropolitan specialists provided outreach services to less populated regions. General surgeons, dermatologists, cardiologists, psychiatrists, medical oncologists and ear, nose and throat surgeons were some of the main specialists providing outreach services.

Distribution of medical practitioners within the major cities

17. The distribution of general practitioners within the capital cities is not uniform across the inner and outer metropolitan. Generally, the older inner metropolitan areas of the capital cities are better serviced with general practitioners than are the newer growing suburbs on the outskirts of these cities.

18. As with general practitioners, the distribution of specialists in the major cities tends to be concentrated in the inner city where the major teaching hospitals are located. Shortages of a range of specialists are evident in the outer metropolitan areas of the State capitals.

Drivers of physician distribution

Influences on general practitioner distribution

19. The major determinants of general practitioner distribution are population size and density with other important influences including access to employment opportunities and services for general practitioners' families and themselves.

20. In some rural and remote areas the population is either too small or too dispersed to sustain a resident general practitioner. In this situation residents either travel to access services or may be provided with outreach services such as the Royal Flying Doctors Service, for both primary care and emergency retrieval.

21. Other rural and remote areas have sufficient population to sustain a single GP although the on-call and after hours obligations can be difficult. To improve the sustainability of practice in these areas the Australian Government has supported practice amalgamations and models of practice based on shared infrastructure, management, training, on-call and after hours arrangements.

22. Small and medium-sized rural towns continue to be 'high need' areas in terms of medical workforce distribution. A number of regional centres, coastal communities and outer metropolitan areas can now be added to these traditional areas experiencing shortages of GP services. Declining population, longer working hours, fewer employment opportunities for their spouse and educational choices for their children and a lower appreciation in property values are all recognised as factors contributing to general practitioner shortages in inland rural locations. Most of these disincentives, however, do not apply to regional towns, coastal communities and outer metropolitan areas where population growth is strong and real estate prices buoyant. What has not kept pace with the growth in population in these areas is the development of infrastructure and provision of services.

23. Australia's inner urban areas generally remain well serviced by general practitioners compared with outer metropolitan, regional and remote locations. These areas have high population concentrations, are well serviced and contain many locations with strong representation from the middle and upper income earning groups. Unlike some overseas jurisdictions, the inner urban areas of Australia's cities do not usually have high concentrations of lower income groups in significant geographic areas.

Influences on specialist distribution

24. The factors discussed above are all equally valid for specialists.

25. The population catchment and infrastructure needed to sustain most sub-specialties exceeds the capacity of most rural and regional centres. Areas with population catchments of less than 10,000 people are too small to sustain any resident specialist services. Most specialist medical Colleges emphasise the need for two or more specialists to be co-located for a service to be viable. For example, a population catchment of 10,000 to 20,000 people would generally support a resident general surgeon and psychiatrist. Population catchments in excess of 200,000 are required for the specialties of cardiology, urology, vascular surgery and neurosurgery.

26. Another important influence on the distribution of specialists is the increasing level of sub-specialisation within the medical specialties. This has resulted, for example, in a substantial reduction in the number of general physicians and general surgeons being trained,

with a subsequent decrease in the numbers of these ‘generalist’ specialists in rural and regional areas. According to the Royal Australian College of Physicians the proportion of generalists fell from 40% in 1981 to 14% in 2001.

27. A major reason for the fact that access to specialist services is better in inner than outer metropolitan areas is that the necessary infrastructure for the provision of many specialist services has been focussed in the major teaching hospitals which are located in the inner metropolitan areas. In addition, vocational training for the medical specialties has been heavily focussed on the major teaching hospitals, and many vocational trainees have taken up posts in these hospitals on completion of their training. This contrasts with the vocational training for general practitioners, which operates on a regionalised basis (see paragraphs 55 to 57).

Programs and policies to redistribute the medical workforce to high need areas

28. Over the last decade the Australian Government has introduced a number of policies and programs aimed at redistributing the medical workforce to areas of high need.

29. For most of this time, these programs have focused, in the main, on redistributing doctors to rural and remote areas where the key shortages have occurred. More recently, they have also focused on regional areas and the outer metropolitan areas of the major capital cities of Australia, as shortages in medical services have extended.

30. The policies and programs to achieve medical workforce distribution generally fall into one of the following three categories:

1. Regulatory mechanisms
2. Education and training initiatives
3. Financial incentives.

1. Regulatory mechanisms

31. The major regulatory mechanisms to improve the distribution of the medical workforce relate to restrictions placed on overseas trained doctors who enter Australia as either temporary or permanent residents.
32. Doctors entering Australia from overseas need to obtain medical registration before they can practise. In addition, if they intend to work in private practice (this applies to almost all general practitioners), they will need to access Australia's universal health insurance scheme, Medicare. To do this they need a Medicare provider number.
33. Conditions placed on overseas trained doctors in relation to medical registration and Medicare provider numbers have enabled their services to be directed to high need areas in public hospitals and the community. Medical registration is a State and Territory responsibility in Australia, and doctors must apply to the relevant State medical board for registration. Only those overseas trained doctors who have passed the Australian Medical Council examination or obtained fellowship of the relevant medical college are able to obtain full medical registration.
34. However, overseas trained doctors who have not done either of these may be given 'conditional registration'. Such registration will allow them to work in areas that are experiencing a shortage of doctors. Other conditions, such as a requirement for supervision, or limitation on the type of services provided, may also be imposed.
35. The States and Territories use the system of conditional medical registration to require overseas trained doctors to take up employment in areas of their State public hospital systems experiencing medical workforce shortages. These shortages may be in rural, regional or outer metropolitan areas.
36. This has been of significant assistance in reducing workforce shortages in public hospitals. Currently about one-third of general medical positions within the Australian public hospital system are filled by overseas trained doctors. More than one-third of all doctors (specialists, general medical positions, interns and vocational trainees) working in public hospitals in the remote areas of Australia are overseas trained doctors compared to 11% in the capital cities.

37. In addition, under the legislation governing the operation of Medicare, overseas trained doctors are able to have restrictions imposed on their access to Medicare. Without access to Medicare it is generally not financially feasible for doctors to operate in private settings in Australia. This control has been used to ensure that overseas trained doctors accessing Medicare are limited to operating in areas of workforce shortage. The restrictions apply for 10 years in the case of permanent residents and indefinitely for temporary residents.

38. This arrangement has been an important factor in ensuring access to general practitioner services in many rural and remote communities. More recently regional areas and the outer metropolitan areas of the capital cities experiencing doctor shortages have been included in the arrangement, allowing significant numbers of overseas trained doctors to work as general practitioners or specialists with Medicare access in high need locations in these areas.

39. Overseas trained doctors who are working in high need areas with a Medicare provider number now constitute 5% of the full-time equivalent general practice workforce in Australia. In remote areas they comprise more than 30% and in rural areas more than 13% of the general practice workforce. In the 12 months to June 2004, 1895 overseas trained doctors were granted Medicare provider numbers that included geographic restrictions on practice. This represents an increase of 26.6% in numbers over the 2002 –2003 financial year.

40. In addition to the medical workforce shortages experienced in particular geographic areas, there are also more general shortages in after-hours service provision and in Indigenous health services. To address these shortages, overseas trained doctors can gain access to a Medicare provider number if they provide after-hours only services or work in an Aboriginal Medical Service, regardless of the location. This has allowed an improvement in these services, particularly in urban locations.

2. Education and training initiatives

41. The Australian Government has also made considerable use of education and training initiatives to promote the improved distribution of medical workforce. These strategies are based on, and are contributing to, a growing body of evidence suggestive of a link between student background (in particular, rural background), location of medical education and training and where doctors decide to enter practice on completion of their training.

42. The initiatives build on one another and generally fall into one of the following four categories:

- Supporting medical students from rural backgrounds;
- Improved rural and regional training infrastructure;
- Bonding arrangements; and
- Placement of new medical schools.

Supporting students from rural backgrounds

43. Research suggests a strong association between a rural background and choosing a career in rural medicine. Support for this view has informed a number of policies and programs introduced by the Australian Government over recent years, including the Rural Undergraduate Support and Coordination (RUSC) Program and the Rural Australia Medical Undergraduate Scholarship (RAMUS) Scheme.

44. The RUSC Program, which was introduced in 2001, provides targeted funding to Australian undergraduate medical schools to facilitate and enhance change in three key areas: rural student selection, the enhancement of support systems for rural students and rural general practitioner educators, and the coordination of rural curriculum placements for medical students. The major aim of this program is to increase the proportion of students from rural backgrounds to at least 25% of students enrolled in medical schools.

45. The Rural Australia Medical Undergraduate Scholarship (RAMUS) Scheme, introduced in 2001, aims to increase the number of medical graduates entering rural practice by providing students from rural backgrounds with financial assistance towards the cost of accommodation, living and travelling expenses while studying. The scheme is means tested and provides financial support at any one time for 500 scholars from rural backgrounds to undertake medical training.

46. Scholarship holders receive financial support of \$A10,000 tax-free each year for the duration of their medical degree. Students are not bonded, but are required to become members of their university's rural health club and to participate in a mentoring program with a rural general practitioner.

47. It is too early to judge the success of the RUSC and RAMUS Schemes in terms of improving rural doctor numbers, as significant numbers of students receiving assistance under them are not expected to complete their vocational training and enter the full-time medical workforce until around 2010.

Improved rural and regional training infrastructure

48. A positive rural experience during early medical training is considered important for a future in rural medicine. However the level of education and training infrastructure in rural and regional areas has been a limiting factor on opportunities to experience rural medicine and a rural lifestyle for both undergraduates and postgraduate medical trainees. Inadequate training infrastructure has also been associated with professional isolation reported by doctors in rural and remote locations.

49. The Australian Government has introduced a number of programs to address this situation and two are outlined here: Rural Clinical Schools for undergraduate medical training and the regionalisation of vocational training for general practice.

50. The Rural Clinical Schools Initiative is part of a broader strategy to support rural and regional health services introduced in 2001-02. The long term aim is to increase the recruitment and retention of rural doctors by strengthening the rural focus of undergraduate medical education. A network of ten Rural Clinical Schools has been established across Australia in regional areas such as Rockhampton/Toowoomba, Dubbo, Wagga Wagga, Shepparton, Moe, Burnie, Whyalla and Kalgoorlie. These clinical schools operate under the supervision and direction of the established medical schools in Australia's capital cities.

51. The Australian Government provides around \$A45 million per year to universities with established medical schools to fund:

- the delivery of clinical training to medical students in rural areas; and
- the construction of capital infrastructure in rural areas, including teaching, administration, student accommodation and telecommunications and information technology facilities.

52. Through the establishment of the rural clinical schools, undergraduate medical students have been able to undertake longer clinical placements in rural areas and gain experience in the breadth of clinical work undertaken by rural doctors. As a result of this initiative, around 25% of Australian medical students from university medical schools with rural clinical schools are undertaking half of their undergraduate clinical training in rural areas.

53. As for the RUSC and RAMUS programs, it is too early to judge the success of the Rural Clinical Schools initiative in terms of improving rural doctor numbers.

54. The benefits of the Rural Clinical Schools have not been limited to the students. Resident doctors and other health professionals have also benefited from the enhanced clinical support and research capacity of the schools and communities have benefited from an increased provision of health services.

55. In 2001, changes were made to the vocational training arrangements for general practice, with a network of regional training consortia being established to provide regionally based training. This allows much more of the training to occur in rural and regional areas, increasing the likelihood that the medical practitioners concerned will take up practice in these areas on completion of their training.

56. General practice trainees can elect to undertake their education and training via either a rural or general training pathway. Trainees choosing the Rural Pathway undertake the majority of their training in rural and remote areas. Those on the General Pathway generally undertake the bulk of their training in metropolitan areas, but are required to undertake one six month placement in a rural area and one six month placement in an outer metropolitan area.

57. There are significant financial incentives for doctors to enrol in the Rural Pathway with additional payments of up to \$A60 000 over 3 years available to general practice trainees who undertake the majority of their training in rural and remote Australia. While the outer metropolitan placement is mandatory for trainees on the General Pathway, there are also financial incentives attached to the placement.

Bonding arrangements

58. The Australian Government has introduced two bonding schemes for undergraduate medical students in recent years. The first of these, the Medical Rural Bonded Scholarship Scheme, is specifically aimed at improving the recruitment of doctors to rural areas. The more recent Bonded Medical Places Scheme is aimed at improving the recruitment of doctors to areas of workforce shortage across Australia.

59. The Australian Government introduced the Medical Rural Bonded Scholarship (MRBS) Scheme in 2000. The MRBS provides a Government subsidised medical school place and a scholarship to recipients, in return for which they are required to work for a minimum of six years in a rural or remote area on completion of their vocational training for general practice or other medical specialty. It is anticipated that this initial interface with a rural or remote community will result in a more long-term commitment to rural medical practice by many of these doctors.

60. Under the MRBS Scheme, 100 scholarships are awarded each year with a total of 400 scholars in the scheme in 2004. The scholarship provides around \$A20 000 (indexed) annually, tax-free, to support students during their undergraduate medical degree.

61. There is a strong sanction on participants who breach the bonding requirements, as they will be precluded from accessing Medicare for up to 12 years, effectively preventing them from entering private practice for this period.

62. In 2004, the Australian Government implemented the second of its bonded schemes as part of an overall plan to help meet Australia's growing need for more doctors. Under the Bonded Medical Places (BMP) Scheme annual medical school intakes were increased by nearly 250 (17%). Students who take up a place under the BMP Scheme receive a Government subsidised medical school place but not a scholarship.

63. The bonding requirement attached to the BMP scheme requires participants to work in a district of workforce shortage for a period of six years. Participants will not be limited to

rural and remote areas and can work in areas of workforce shortage in regional and outer metropolitan areas.

64. Participants who breach their bond will be required to repay the Government's contribution to their education, with interest, but will not be precluded from access to the Medicare system.

65. In 2004 around 20% of commencing medical students nationally took up places in one of the two bonded schemes, with the remaining 80% not subject to any bonding requirement. Both schemes have been fully subscribed.

66. The first MBRS students will not take up medical practice as a general practitioner or medical specialist until 2009 and the first BMP students until 2013. While the success of these schemes in terms of improving medical workforce distribution cannot be judged at this time, it is anticipated that, over time, the two schemes will significantly increase the number of medical graduates available to practice in outer metropolitan, regional and remote districts of workforce shortage.

67. By the time the first cohort of students from both programs has completed their training an additional 350 doctors per annum will be available for practice in these locations. By the time the third cohort from both schemes has completed their medical training more than 1000 additional medical graduates will be practising in districts of workforce shortage as part of their bonding obligations.

Placement of new medical schools

68. Since 2000, eight new medical schools have been established in Australia or are in the pipeline, to augment the existing ten medical schools. In contrast to the existing medical schools which have been concentrated to a large extent in the inner metropolitan areas of the capital cities, these new medical schools are predominantly located in areas where the supply of doctors needs to be increased and several have a specific focus on addressing local workforce shortages.

69. It is anticipated that a significant proportion of the medical students is, or will be, from the region where the medical school is being located. Given that the students will spend 4 to

6 years training as undergraduates in the region, significant numbers are likely to take up medical practice there. For example:

- the new medical school established at James Cook University in Townsville in North Queensland in 2000 has a major focus on tropical medicine and the training of doctors for rural and remote areas;
- the medical school to open at Griffith University on Australia's Gold Coast in 2005 is in a regional area that is one of the fastest growing areas in Australia;
- the medical school being established at the University of Wollongong is in a major population growth corridor south of the Sydney metropolitan area and will provide a graduate medical course designed specifically to produce doctors for general practice in regional and rural areas; and
- the new medical school being established at the University of Western Sydney in the outer western suburbs of Sydney. This Greater Western region of Sydney is home to 1.8 million people and has a rapidly growing population and demand for medical services.

3. Financial incentives

70. The Australian Government provides a range of financial incentives to encourage doctors to provide services in areas where they are most needed. Initially these incentives were limited to general practitioners in rural and remote locations. However, with a wider range of locations now experiencing doctor shortages, financial incentives have also been introduced in these areas.

71. General practitioners in rural and remote regions are able to access a number of additional payments on top of their usual fee-for-service income. The level of payments is influenced by the remoteness of the location in which the general practitioner works, the length of service in that location, and the volume of services provided.

72. Financial incentives provided to rural and remote general practitioners include:

- Rural retention payments, currently paid to more than 2,000 long serving general practitioners in rural and remote Australia;
- a rural loading to compensate rural general practitioners for the limitations of fee-for-service arrangements in these areas given their lower population numbers;

- an additional loading paid to rural general practitioners providing obstetrics, surgical and anaesthetic services as well as financial assistance to cover the costs of a locum when undertaking training to develop and maintain their skills;
- additional financial assistance to rural procedural general practitioners to cover their medical indemnity insurance costs; and
- payments to rural general practitioners to employ practice nurses to assist them with the provision of medical services.

73. The range of financial incentives available to rural general practitioners has assisted in improving the distribution of general practitioners between metropolitan and rural and remote locations over time. Since 1996 GP activity in rural areas has increased by more than 15% including a 7.2% increase in the last two years. In 2003 45% of general practitioners in rural and remote locations (excluding regional centres) had spent more than 5 years in their current practice with the average length of stay being 9 years.

74. Strategies to address shortages in the rapidly growing outskirts of Australia's six capital cities have been introduced more recently. The More Doctors for Outer Metropolitan Areas Measure was implemented in 2003 and aims to encourage redistribution of the existing workforce from relatively well supplied inner urban areas to outer metropolitan areas of shortage.

75. The program offers a one off grant to doctors (general practitioners and specialists) who agree to relocate under the program. \$A30 000 is available to doctors who relocate on a full-time basis to establish a new practice, and up to \$A20 000 to doctors who relocate to join an existing practice. Smaller grants are also available to doctors already located in outer metropolitan areas who agree to significantly increase their hours of work. The higher grant is available to encourage the establishment of new practices in greenfields developments where there is little or no health infrastructure. Doctors who take up the grant are required to remain in the new location for a defined period (usually between two and three years).

76. Since the program was introduced a number of refinements have been made. A test of 'net benefit' has been introduced to ensure that doctors are not relocating from areas that already have a shortage of doctors. This test also ensures that the doctor is relocating a

reasonable distance, rather than simply crossing the boundary between inner and outer metropolitan areas.

77. A further flexibility in the program has allowed for some adjustment to the boundaries of the program in response to changing workforce statistics or significant local factors such as a very high proportion of elderly people.

78. Since its inception in January 2003, the measure has been taken up well with 165 doctors being approved to access relocation grants under this program.

79. There are also two other new Australian Government measures that provide support to general practitioners in urban areas of workforce shortage. Access to the Practice Nurse Incentive Payment, initially only available in rural and remote areas, has been extended to general practices in urban areas of workforce shortage to support the employment of practice nurses. In addition, new Medicare items have been introduced for specified services, such as immunisations and wound management that can be provided by a practice nurse, without the doctor needing to be present (this is available nationally). These measures are designed to free up general practitioners' time and enable them to focus more on the medical issues of those patients in most need of attention.

80. An emerging area of non-geographic shortage is in aged care homes which have found it increasingly difficult to keep the services of general practitioners who can provide regular consultations for residents. . To address this issue, up to \$A8000 per annum is available to general practitioners to provide routine, urgent and after-hours care to aged care residents as well as work with aged care homes on quality improvement activities. In addition, a new Medicare item has been introduced to fund general practitioners to undertake comprehensive health assessments of new and existing residents of aged care homes. This will assist aged care facilities with care planning and medication management for these residents.

Conclusion

81. Australia's large geographic area and relatively small and dispersed population present major challenges for medical workforce distribution. Traditionally rural and remote areas have experienced medical workforce shortages and a variety of policies and programs have been implemented to attract, retain and support doctors in these locations. However, more recently shortages have emerged in regional centres and outer metropolitan areas. In addition, non geographic areas of shortage exist in Indigenous health, after hours and aged care.

82. A range of policies have been implemented to address these shortages based on the use of regulatory mechanisms, the education and training systems, and financial incentives. The available evidence suggests that the regulatory mechanisms and financial incentives used have assisted in reducing shortages in the targeted areas. However, it is still too early to assess the effectiveness of the education and training initiatives given that they are relatively new measures whose impact is expected in the medium to longer term.

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