

Part 3

Health and Education

Chapter

6

**Improving access to
health care in Australia**

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Improving access to health care is vital in improving population health, yet out-of-pocket costs remain high and Australia scores poorly in international comparisons of access and equity in health care. We provide evidence that current government funding to improve access through Medicare, through private health insurance subsidies, and through programs to improve the distribution of the medical workforce need to be better targeted to those who are in most need of health care and who are most responsive to government subsidies. A 'one size fits all' approach to government policy might be administratively simple but can be inefficient and inequitable. Improving access to health care for vulnerable populations and those on low incomes should be a priority.

INTRODUCTION

Though comparisons of Australia's health system performance with other rich countries are favourable in terms of relatively high health status and health spending is only 10.2 percent of GDP, comparisons are less favourable with respect to access to health care in terms of affordability and timeliness (AIHW, 2022; Schneider, 2021).

Government intervention in the funding and organisation of health care plays a key role in improving affordability and ensuring that populations have equal opportunities to access timely health care. The structure of health-care financing in Australia reflects the split in state and federal responsibilities forged in the Australian Constitution and so major funding reform is difficult. Australia's health care is funded from four main sources. The first is Medicare, the central national pillar of taxpayer-funded health care in Australia. Medicare provides around half of funding for public hospitals, subsidies for pharmaceuticals and subsidies for private medical services provided by general practitioners (GP) and non-GP specialists.

IMPROVING ACCESS THROUGH MORE AFFORDABLE HEALTH CARE

Affordability is an issue because health-care out-of-pocket costs have been rising much faster over time than wages (Bai et al., 2020). Though Australia's funding arrangements for health care do much to improve access by reducing financial barriers for many, it remains the case that around 20 percent (\$1,556/\$7,926 in 2019–20) of the average person's total annual health expenditure is from individual out-of-pocket expenses. Individual out-of-pocket health spending was growing by 2.8 percent per year above inflation just before the pandemic. The proportion of average annual income devoted to personal spending on health care was 2.6 percent in 2018–19 and this proportion is increasing by an average of 1.4 percent per year (AIHW, 2021). The cost burden is higher for those with low incomes, with those in the lowest income decile 15 times more likely to have catastrophic health expenditures (10 percent or more of net income spent on health care) than those in high income groups (Callander et al., 2019)

It is well known that out-of-pocket costs for health care reduce the utilisation of health care for those most in need as much as it does for those less in need (Aron-Dine et al., 2013). This is because most patients cannot reliably self-diagnose and assess their own need (this is why they need doctors) and so do not know whether a specific symptom, such as abdominal pain, reflects a minor diagnosis or something very serious. If one believes that the allocation of resources in health care should be based on clinical need, then the use of out-of-pocket costs to do this is inefficient and inequitable. In 2020–21, 10 percent of Australians who delayed seeing a GP or did not see a GP when needed, reported costs as a reason. For non-GP specialists this was 30 percent (ABS, 2021). If people wait too long, their condition can worsen and require more expensive downstream hospital treatment.

The second funding source is from state and territory governments, which provide the other half of funding for public hospitals. The third source is supplementary private health insurance, which covers private in-hospital services and ancillaries such as optical, dental and some allied health. Private cover is held by 45 percent of Australians, with coverage encouraged by taxpayer subsidies of premiums and financial incentives to encourage uptake. The fourth source is out-of-pocket payments from patients primarily for private health insurance premiums, as well as for private medicals services provided by GPs and non-GP specialists. Within any type of financing arrangement, the distribution of resources also influences access. This mainly concerns the distribution of health-care providers (health workforce, hospitals, primary care practices) across geography, specialty and settings (for example, hospital, primary care, public-private sector).

The aim of this chapter is to focus on three issues that influence access to health care in Australia: affordability, private health insurance and medical workforce distribution. The following three sections will examine each of these, including outlining the key policy issues, the research evidence on how access can be improved, and future avenues for research and policy.

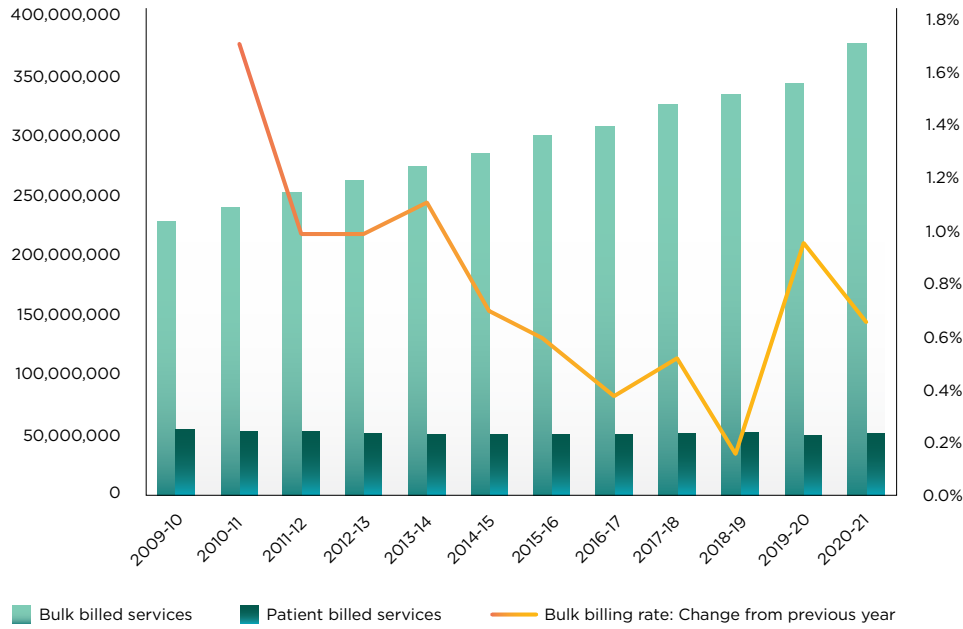
Access to medical services provided by all GPs, and to around 80 percent of non-GP specialists who work in private settings, depends on ability to pay. Medicare reduces out-of-pocket costs for these services by providing patients with a subsidy, whilst doctors can charge fees at above the subsidy. This means that the amount of out-of-pocket cost for a patient is at the discretion of the doctor who can (a) accept the medical benefits schedule (MBS) subsidy as full payment (known as 'bulk billing') or (b) charge above it, which results in patients (and private health insurers for private in-hospital services) having to cover the difference.

Bulk billing rates are highest for services provided by GPs at 88 percent (in 2020–21) and are lowest for out of hospital services provided by non-GP specialists at 45 percent. From 2009–10 to 2020–21 the number of out of hospital services grew by 51 percent, whilst over the same period the proportion of bulk billed out of hospital services grew much more slowly by 7 percentage points from 81 to 88 percent (Figure 1). The growth in bulk billing rates fell after the introduction of the MBS freeze to the indexation of MBS subsidies between 2014 and 2018. Growth in bulk billing rates reached the highest point during the pandemic, when telehealth items were introduced with most items bulk billed.

Bulk billing rates based on the number of services do not capture the financial burden faced by patients since the bulk billing rate reported by Medicare only captures the proportion of services that are fully covered by the subsidy and not the proportion of patients who pay no additional fees. A patient can be bulk billed for some visits but not others, and during a single doctor's visit some services might be bulk billed while others might incur out-of-pocket costs.

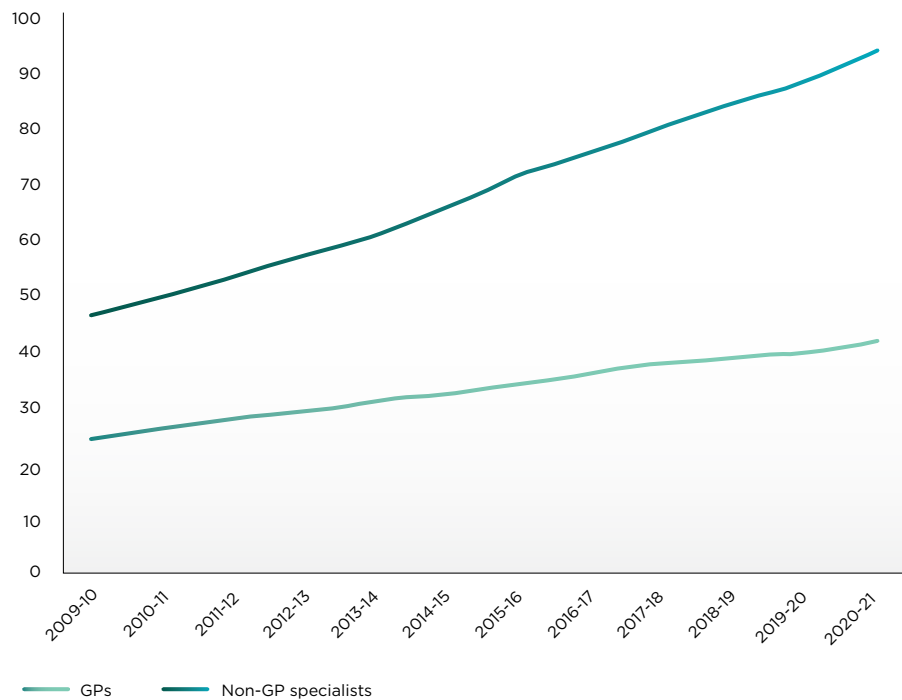
Figure 2 shows the increasing average out-of-pocket per service provided out of hospital for GPs and non-GP specialists. In the decade pre-pandemic, out-of-pocket costs for out of hospital services provided by GPs were growing at a rate of 5.3 percent every year. For non-GP specialists the average change from the previous year was 6.8 percent. This is almost twice the growth of wages over the same period (ABS, 2019), suggesting that affordability is an increasing issue for patients. Though there is much evidence of fee variation (Freed and Allen, 2017), there is much less evidence of what factors influence doctors' decisions to set fees and to bulk bill.

Figure 1.
Number of out of hospital services and annual growth of bulk billing rate.



Source: Authors' own calculations. Annual Medicare Statistics Dataset. Department of Health and Aged Care, <https://www1.health.gov.au/internet/main/publishing.nsf/Content/Medicare%20Statistics-1> (Department of Health, 2021).

Figure 2.
Average patient contribution (in dollars) per service 2009–10 to 2020–21.



Source: Annual Medicare Statistics Dataset. Department of Health and Aged Care, <https://www1.health.gov.au/internet/main/publishing.nsf/Content/Medicare%20Statistics-1> (Department of Health, 2021). Average patient contribution per service = (Out of hospital fee – Out of hospital benefit paid) / Number of out of hospital patient billed services.

The evidence on the drivers of out-of-pocket costs

Within the current system of financing and subsidies, doctors take into account the level of subsidy when setting fees and decide whether patients pay an out-of-pocket cost (the decision to bulk bill or to use gap cover for private inpatient hospital care) and, if so, how much it is.

When setting fees doctors will usually refer to the list of fees recommended by the Australian Medical Association, which are around double that of Medicare subsidies, and they may consider what other doctors in their specialty or geographical area charge. Doctors will set fees to cover the costs of running their practice, which will vary across geographic areas. There is evidence that doctors consider the financial situation of their patients when making pricing decisions as fees are higher for doctors located in more affluent areas (Gravelle et al., 2016; Johar, 2012; Johar et al., 2017). Figure 3 shows the percentage of patients bulk billed is higher if the doctor's main practice is in a disadvantaged area. Doctors are more likely to bulk bill if patients have more complex health and social problems (Figure 3).

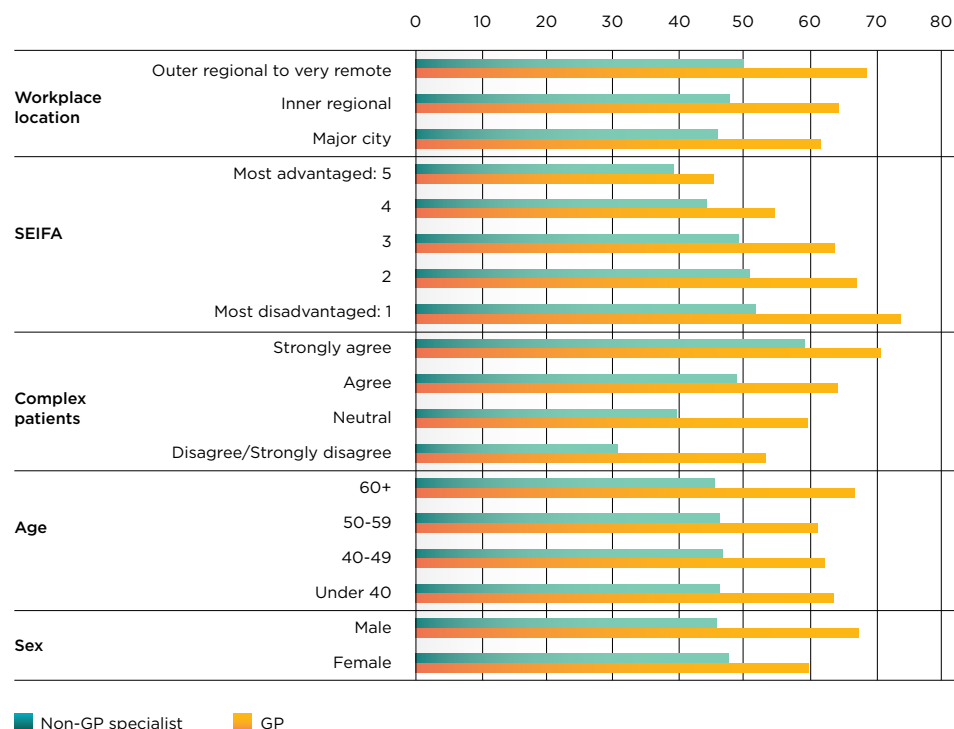
Being self-employed, doctors also need to set fees to cover the value of their own time and expertise. In a market setting this would usually be determined by what patients think is high-quality care. Relative fees would therefore reflect the relative value of the services provided to patients. Patients, however, generally do not possess this information and there are no published data on the quality of doctors and so the demand side of the market is weak, especially for non-GP specialists. Patients rely heavily on their GP's recommendations or recommendations of relatives and friends. It is difficult for patients to shop around and, in many cases, there may be few alternative doctors available, especially

for more highly specialised care. This can provide an environment where doctors have too much market power and where fees and out-of-pocket costs can be too high.

Understanding doctors' motivations and the market conditions under which they work is therefore important for designing policies to increase affordability and reduce the market power of doctors. Our previous research has shown that, for GPs, more competition can lead to lower prices and higher bulk billing rates (Gravelle et al., 2016), and so the structure of the market in terms of the number, size and location of practices can influence competition and therefore potentially keep fees and out-of-pocket costs relatively low. However, we also find evidence that more competition may lead to higher amounts of low value care being provided (Scott et al., 2022). In addition, our research has found that GPs facing more competition are more likely to increase fees if they have a higher level of monetary motivation, whilst GPs who care less about money are less likely to increase fees (Scott and Sivey, 2022).

Non-GP specialists face less competition because their markets are usually smaller. Our research has shown that more competition amongst specialists (defined as more doctors of the same specialty in their local area) does not reduce their fees (Méndez et al., 2022). There is also little informed patient choice because of a referral system that is not fit for purpose (Prime et al., 2020), where neither quality nor out-of-pocket costs have been published (Productivity Commission, 2017) and so high fees can sometimes be interpreted as high quality. The absence of data that captures referral patterns makes policy design in this area particularly challenging.

Figure 3. Average percentage of patients bulk billed by doctor characteristics.



Source: Authors' own calculations. Medicine in Australia: Balancing Employment and Life (MABEL) data from 2008 to 2018. Pooled average of GPs' and non-GP specialists' response to the question: 'Approximately what percentage of patients do you bulk bill/charge no co-payment?'

Policies to reduce out-of-pocket costs

Reducing the extent of market power should be a key factor guiding policy in this area. The ability of doctors to freely set their own fees is protected by the Constitution, so unlike other countries the direct regulation and control of fees is not a feasible policy option. There are several other alternatives. Our research suggests that the use of markets and competition to reduce fees and out-of-pocket costs might only be effective for GPs, and could be less effective for non-GP specialists (Gravelle et al., 2016; Méndez et al., 2022). Increased consolidation of private medical practices could lead to less competition and higher fees. The role of competition policy in this area is therefore important.

Excessive fees and out-of-pocket costs for specialist care and falling private health insurance membership prompted government scrutiny that led to the formation of a Ministerial Advisory Committee on Out-of-Pocket Costs in 2018. Following its recommendations (Department of Health, 2018), the Department of Health launched Medical Cost Finder, a website that allows patients to find the expected cost for common inpatient procedures, which follows similar websites from private health insurers (Chalmers et al., 2020). Our ongoing research is examining the effects of price transparency on out-of-pocket costs. However, our review of the evidence on the effectiveness of such websites, based on studies from the United States, is at best mixed (Zhang et al., 2020) and there are no published data on the quality or value of the services being provided.

The second option available is to increase subsidies for those most in need (and reduce them for those less in need). Fees are influenced by the level of subsidy, and so more careful targeting of Medicare subsidies to those most in need could be considered. It seems more important to reduce out-of-pocket costs for those on relatively low incomes, where even a few dollars might influence the decision to visit their GP or not. Those with concession cards (that is, on low incomes) and children aged under 16 can receive a higher Medicare subsidy if they are bulk billed by a GP, but this is at the doctor's discretion and does not guarantee they will be bulk billed. Even the uncertainty of whether bulk billing would be offered may reduce utilisation. In addition, concession cards are given to those on low incomes but may not protect against very high out-of-pocket expenditures (Jones et al., 2008). Linkage to income tax data would enable more careful targeting of Medicare subsidies to those who need them most.

The current Medicare safety nets are not means tested, such that those on a high income with out-of-pocket expenses above the safety net thresholds receive the same subsidy as those on a low income. The safety nets also mean that individuals incur out-of-pocket expenses in a calendar year before they reach the threshold, and so could still skip visits because of costs if they are unsure of meeting the threshold. At a minimum, access to safety nets should be only for those on low incomes with a reduction in the minimum thresholds.

Though increasing subsidies is an option, the evidence on the effectiveness of increasing subsidies is scarce but suggests unintended consequences. The problem with changing subsidies is 'pass through' where increases in subsidies have led to increased fees, as some doctors take the subsidies as higher income and patient out-of-pocket costs do not change as much, or reductions in subsidies do not lead to reduced fees (Yu et al., 2019). This might happen less often if such increases are targeted to those on low incomes.

Increasing affordable access to primary care should be prioritised because GPs provide preventive health care, help with early diagnosis, and manage continuity and coordination of care. More targeted subsidies to low-income and vulnerable population groups and designing funding models that address the coordinated management of chronic conditions can contribute to more equitable and affordable access to care. The low bulk billing rates, high out-of-pocket costs and large variation in fees between and within non-GP specialties such as surgery, for example, indicate excessive market power and lack of competition (Royal Australian College of Surgeons and Medibank Private, 2017; Scott, 2018). With rising out-of-pocket costs, those who can afford care will continue to pay for it but the most vulnerable will not, widening the gap in equitable access and health status.



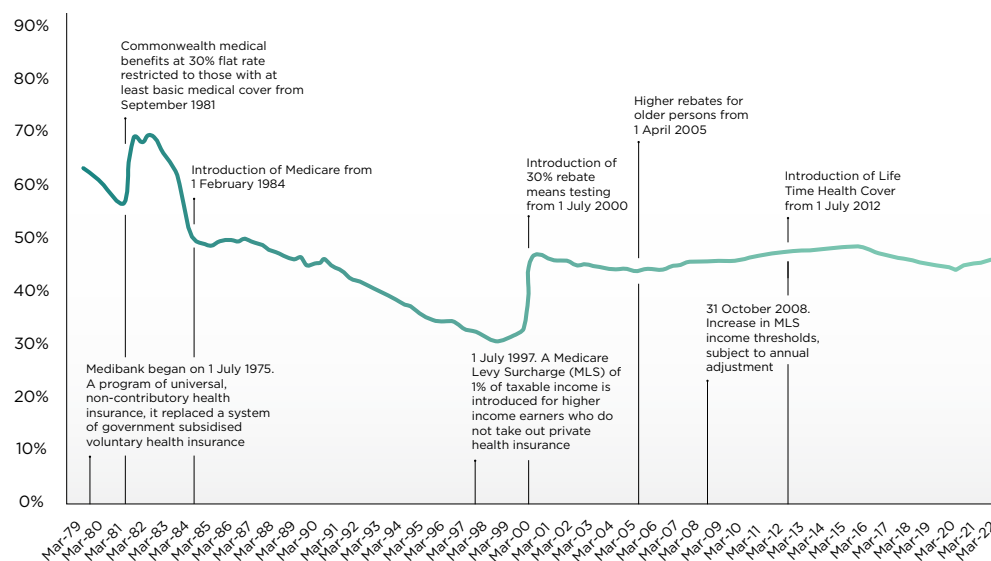
THE ROLE OF PRIVATE HEALTH INSURANCE

Despite having access to a free, high-quality public hospital system, Figure 4 shows that 45.1 percent of Australians purchased private hospital insurance in the March quarter of 2022 (Australian Prudential Regulation Authority, 2022). Supplementary private health insurance can increase access to private health care for those on higher incomes, and if this group chooses to use private hospitals, it is argued that this reduces the pressure on public hospitals and so increases access (reduces waiting times) for those on lower incomes. This is the main justification used for taxpayer subsidies and incentives—‘carrots’ and ‘sticks’ policies—designed to increase the uptake of private health insurance.

Private hospital insurance covers the hospital admission, sometimes with a co-payment, and specialists in private hospitals charge patients a fee, which is partly covered by Medicare and partly covered by private health insurance through ‘gap cover’. Whether gap cover is used, which can lead to no out-of-pocket costs, is entirely at the discretion of the doctor, similar to bulk billing. Those with private health insurance who choose to use private care may therefore need to pay high and unpredictable out-of-pocket expenses.

People often buy private hospital insurance to access shorter waiting times for care in private hospitals and a greater ability to choose one’s own doctor (Zhang and Prakash, 2021). In addition, reasons to buy private health insurance vary substantially by age (Figure 5). For instance, 73 percent of those older than 65 purchased private health insurance for peace of mind, while for those aged 18–34, the most common reasons are ‘I need it for a current health condition’ (for example, young women buy private health insurance when anticipating child birth) (Zhang and Prakash, 2021).

Figure 4. Private hospital treatment coverage (insured persons as a percentage of the population) and key policy changes 1979 to 2022.



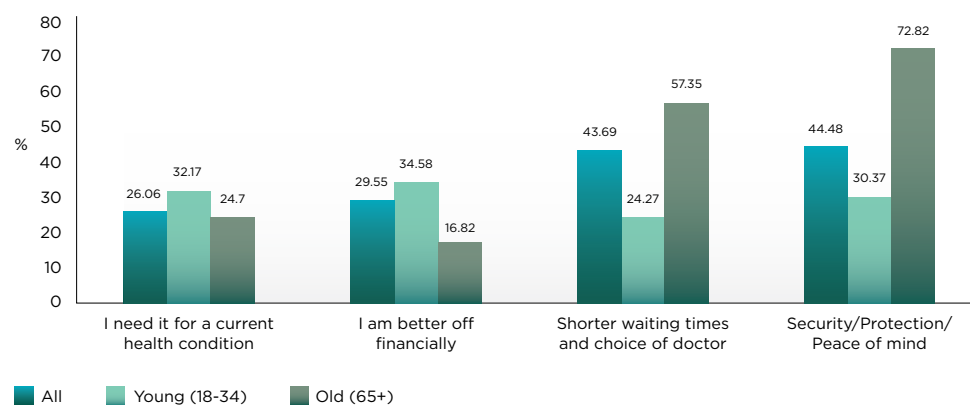
Source: Australian Prudential Regulation Authority. Quarterly Private Health Insurance Membership Trends March 2022. <https://www.apra.gov.au/sites/default/files/2022-05/Quarterly%20Private%20Health%20Insurance%20Membership%20Trends%20March%202022.xlsx>

Three main government regulations were initiated between 1997 and 2000 to encourage people to take out private health insurance (Figure 4). In 1997, the government introduced the Medicare Levy Surcharge (MLS), which imposes additional income tax for people who earn above a certain threshold and do not hold private hospital cover. In addition, the government offered subsidies for private health insurance premiums for those with incomes below certain thresholds (max \$150 discount per year for singles earning <\$35,000, and \$450 for families earning below \$70,000). On 1 July 1999, the government increased the premium rebate to 30 percent of premiums for everyone regardless of income. Finally, on 1 July 2000, the government introduced an age-based premium penalty—Lifetime Health Cover (LHC)—to encourage individuals to enrol earlier in life. If people do not have hospital cover before their base day (the later of 1 July 2000 or the 1 July following their 31st birthday) and decide to buy after, they have to pay a 2 percent loading on top of their hospital premium for every year they are aged over 30 (Commonwealth Ombudsman, 2021).

Since then, the Australian government has made some changes to the above incentives. For example, age-specific premium rebates were introduced in 2005 to increase rebates for adults older than 65, rebates became means-tested and their growth capped in 2012, and MLS thresholds and levy rates increased in 2008 and 2012 respectively (Figure 4). Nevertheless, these three incentives have largely maintained their structure, especially LHC, which has not experienced any major changes since 2000.

Figure 5.

Percentage of the population with private health insurance, by reason for purchase.



Source: Taking the Pulse of the Nation Survey (Zhang and Prakash, 2021).

Evidence on the effectiveness of policies to increase the uptake of private health insurance

The above policy changes have been effective in encouraging the uptake of private health insurance (Frech III et al., 2003). The percentage of people with private health insurance rose from 31 percent in 1999 to 45 percent at the end of 2001. Prior work has estimated the effects of tax and price incentives on the demand for private health insurance (Frech III et al., 2003; Stavrunova and Yerokhin 2014), especially focusing on three policies (MLS, LHC and 30 percent rebates) introduced during 1997–2000 (Palangkaraya and Yong, 2005).

These early studies largely rely on survey data but could not separate the effects of different policies because they were implemented around the same time. As more data have become available, especially large administrative data such as Australian tax data, our recent research has been able to evaluate the causal effects of these policies separately and expanded analyses to different subgroups.

Kettlewell and Zhang (2021) evaluate the overall effect of LHC on the take-up of private health insurance using data from a 10 percent random sample of Australian tax-filers. They show that LHC only affected those at age 31 and the effectiveness of the policy has fallen but then increased over time. They conclude that any modest changes to this policy (or abolishing LHC) would not make much difference to the age distribution of the insured, premiums or take-up rates.

Using similar tax data, Liu and Zhang (2022) study the effect of age-specific premium rebates on private health insurance take-up among older adults. They find that higher rebates led to small increases in private health insurance take-up. For those aged 65 to 69, an increase in rebates from 30 to 35 percent led to a 1 to 1.5 percentage-point increase in take-up in the first two years of the policy. For those aged 70 to 74, an increase in rebates from 30 to 40 percent led to a 1.5 to 2.7 percentage-point increase in take-up. The effects are driven by those in the bottom income quartile. This suggests that old adults are less sensitive to rebates, partly because they may value private treatment more and/or are more risk averse than the general population. The findings support the use of this means-tested rebate policy but suggests a need to recalibrate these income contingent rebates to better target those in the bottom income quartile.

Does more private health insurance improve access to health care?

Though the above policies improve the uptake of private health insurance, this does not necessarily mean that they improve access to health care or improve health status. It is well-documented that health insurance increases health care use and health status compared to no insurance (Baicker et al., 2013; Buchmueller et al., 2005; Freeman et al., 2008; Newhouse, 1993), but fewer studies have investigated the effect of private health insurance on utilisation when free public hospital care already exists (Doiron and Kettlewell, 2020; Eldridge et al., 2017). Substitution of private care for public care would occur only if those with private health insurance use it, and use it in private hospitals instead of public hospitals. Private health insurance can also be used in public hospitals, but with fixed capacity this would contribute to increased waiting times and reduced access for public patients.

Two studies find evidence of substitution and that those with private health insurance are associated with use of more private hospital care than the reduction in public hospital care, both using cross-sectional survey data from 2004 (Doiron and Kettlewell, 2018; Eldridge et al., 2017). The first found that private health insurance was associated with increased total hospital use by 4 percentage points. This represented a net substitution effect of a 16 percentage point increase in private admissions and a 13 percentage-point reduction in public admissions (Doiron and Kettlewell, 2018). The second study found that private hospital insurance did not expand the overall use of hospital care, but increased the likelihood of hospital admission as a private patient by 13 percentage points, 11 percentage points of which came from substitution away from public hospitals (Eldridge et al., 2017). This raises the issue that though there could be substitution, it might be more costly.

There are several studies that have demonstrated the association between having private health insurance and use of private treatment (Cheng and Farshid, 2011; Rana et al., 2020; Srivastava and Zhao, 2008). For example, Rana et al. (2020) use 2009 and 2013 data from the Household Income and Labour Dynamics in Australia (HILDA) Survey to compare use of hospitals among those with and without private health insurance, finding that patients with private health insurance have a higher number of hospital nights' stay but fewer hospital admissions, relative to those without private health insurance. They also note that one quarter of patients choose to use public care despite having private health insurance hospital cover. More recent research finds that LHC increases the uptake of private health insurance by 1.7 percentage points and increases the use of private hospitals by 1.4 percentage points among those who have just turned 31 years old. This effect is small because it only affects those who choose to purchase private health insurance due to the LHC policy (Ananyev et al., 2022). They are uninsured and LHC simply brings forward their purchase. More research is needed to study this for the general population.

Policies to improve access through private health insurance

To improve access to health care, government subsidies to private health insurance premiums should be targeted to those who need them most. Previous evidence shows that people respond to rebate incentives differently. Older and high-income people are less responsive to rebates than those who are younger and on lower incomes. The government could consider lower income thresholds for rebates and increase rebates for younger people who would be more responsive per dollar of the subsidy.

Future policy changes should not focus on changes to LHC. Our research suggests LHC affects only a very small number of people and any changes or even abolition would make little difference to improving uptake amongst the young and overall market premiums. Focusing on increasing the value of private insurance, especially services useful to the young, is a better approach to encourage the young to enrol.

Future policy reform should focus on redesigning MLS policy. The overall effect of the MLS on uptake is relatively small compared to the effect of premium subsidies. Many people buy the cheapest private health insurance plan to avoid MLS but will never use private hospitals when they need hospital treatment because their private health insurance plans do not provide adequate coverage or require high (and uncertain) levels of out-of-pocket spending.

If the goal of private health insurance is to reduce the burden on the public system, current research suggests it would cost less to fund public hospitals directly than trying to encourage people to buy private health insurance and use private hospitals (Cheng, 2014), though there is no evidence yet of the effects on health status or inequalities in access. This also raises the issue of how to encourage increased efficiency in the private hospital sector.



DISTRIBUTION OF THE MEDICAL WORKFORCE

A key aspect of access to medical care within most systems of financing concerns the geographic distribution of the medical workforce. Doctors who graduate within Australia are free to choose where to work. The decision of the geographic location in which to work is complex and the availability of health professionals, especially doctors, in rural areas has been a key policy for many years.

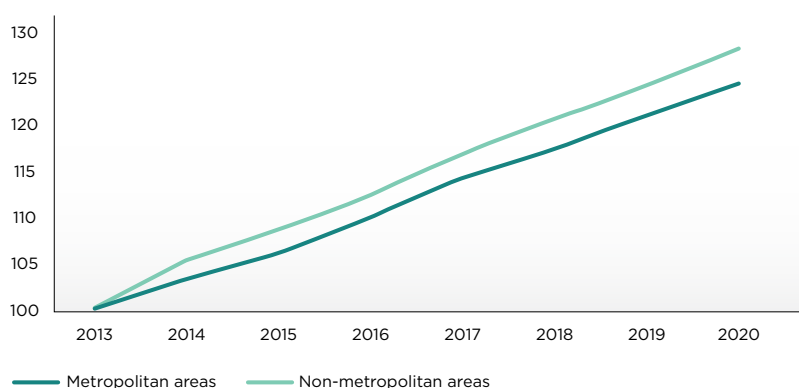
There have been small improvements in distribution over time. In 2020, of the 105,178 doctors working in clinical practice in Australia, 20.9 percent were in non-metropolitan areas compared to 20.3 percent in 2013. This is reflected in Figure 6, which shows that the number of doctors in non-metropolitan areas has been growing slightly faster than those in metropolitan areas. Over the period, average annual growth in the number of doctors in metropolitan areas was 5.4 percent compared to 6.3 percent for doctors in non-metropolitan areas. This is due to faster growth in the number of doctors being trained outside of metropolitan areas and faster growth in the number of specialists in non-metropolitan areas. The number of GPs, which has been the main focus of policy interventions to increase the rural medical workforce, is growing fastest within metropolitan areas (Scott, 2021).

There has historically been little rigorous evaluation of the effectiveness of policies to improve medical workforce distribution, so it is difficult to isolate the source of the slightly improved distribution over time (Buykx et al., 2010; Grobler et al., 2015). The main, and arguably most successful, policy has been filling the gap using international medical graduates (IMGs) who are mandated to practise in areas of 'need' for up to 10 years after they first arrive in Australia, with IMGs comprising 39.6 percent of doctors in non-metropolitan areas in 2020.

The second key policy implemented from around 2000 is self-sufficiency of the medical workforce, which was implemented by 'flooding the market' through doubling the number of medical graduates by opening new medical schools and giving priority to medical training places to domestic graduates. The hope was that new doctors would 'spill over' into rural areas as cities became 'full' and so the need to rely on IMGs would fall over time. Generally, after 20 years, Australia is still heavily reliant on IMGs but there is some aggregate evidence that things are very slowly changing. The number of IMGs has continued to grow by an average of 3.9 percent per year between 2013 and 2020, compared to 6.4 percent growth for Australian medical graduates due to the increase in domestic supply. In 2013, 34.7 percent of doctors (42.9 percent in non-metropolitan areas) were IMGs, which has fallen to 32.4 percent (39.6 percent in non-metropolitan areas) by 2020. However, assuming IMGs are the same quality as Australian domestic graduates (most are from the United Kingdom, for example), importing IMGs is much more cost-effective since Australia does not have to pay for their training. The doubling of domestic medical graduates has therefore been very expensive compared to using more IMGs though the move to self-sufficiency was also driven by ethical concerns related to taking doctors from other countries that may have shortages. Other complementary policies have included increasing the proportion of time spent training in rural areas, providing new career pathways that support rural practice, the preferential selection of medical students who grew up in rural areas, and financial incentives.

A number of policies have evolved over time that use financial incentives to encourage doctors to move to, and stay in, non-metropolitan areas. Doctors in rural areas receive rural 'loadings' for all payments they receive from the Practice Incentive Program, which on average comprises about 10 percent of their annual income. In addition, they receive higher levels of bulk billing incentives, which are used to encourage fees to be set equal to the Medicare subsidy so that patients have no out-of-pocket payment. However, the main current scheme is the Workforce Incentive Program, which was introduced in early 2020. This provides additional payments to GPs depending on their geographic location and how long they have been working there. The minimum payment is \$4,500 per year for a doctor in a Modified Monash Model (MMM) 3 location who has been there for two years. The maximum payment is \$60,000 per year for a doctor who has been working in the most rural area (MMM7) for five years or more. The longer they stay the higher the reward.

Figure 6.
Cumulative percentage growth in the number of doctors.



Source: Authors' own calculations. National Health Workforce Dataset. Health Workforce Data Tool. <https://hwd.health.gov.au/datatool/>. Metropolitan areas are defined using Modified Monash Model (MMM) category 1. Non-metropolitan areas are defined using MMM 2 to 7.

The evidence on improving medical workforce distribution

In terms of training, career pathways and medical student selection, there is no causal evidence for the effectiveness of these policies, though associations are large. For example, evidence from the Medicine in Australia: Balancing Employment and Life (MABEL) survey shows that doctors who spent more than six years growing up in a non-metropolitan area are 2.3 times more likely to end up working in a rural area (McGrail et al., 2011) with stronger associations for those of rural origin and who were trained in a rural area (McGrail et al., 2016).

The effectiveness of the use of financial incentives has only recently been evaluated using data from the MABEL panel survey of around 10,000 doctors per year over 11 annual waves from 2008. One study finds that for the majority of GPs no amount of money can persuade them to move from a metropolitan area to a rural area. This research examined GPs' preferences for rural location using a discrete choice experiment that asked doctors to choose between a series of pairs of different hypothetical jobs, with each job varying according to its geographic location and a range of other job characteristics (income, hours worked, on call, opportunities for social interactions, arranging a locum, size of practice team and consultation length) (Scott et al., 2013). In making these choices, doctors traded-off income for rural location and so it was possible to estimate the change in income required to persuade doctors to work in rural locations. First, 65 percent of GPs chose to stay in their current job over all of the jobs they were offered, regardless of the increase in income offered or improved levels of other attributes. Compared to jobs in metropolitan areas, when offered jobs in rural areas, between 72.5 percent and 91 percent (depending on the characteristics of the rural job) would prefer to stay in their current job. For those who were prepared to move, they would need to be compensated between 10.3 percent (\$18,791) and 130 percent (\$237,002) of their annual income, with 130 percent representing the 'worst' job in a rural area (for example, 10 percent increase in hours, 1-in-2 on-call, rural inland location, very limited social interactions, very difficult to get locum cover, GP and receptionist only and a 10-minute consultation length). These results suggest that financial

incentives would work for only a small proportion of GPs and would need to be much higher than currently offered to persuade them to move to rural areas with poor job characteristics. The results also suggest the importance of other job characteristics to persuade doctors to move to rural areas.

Two studies evaluate a change to the predecessor of the Workforce Incentive Program, the GP Rural Incentives Payments (GPRIP) program. This had a similar structure of payments as the Workforce Incentive Program. In 2010, the eligibility of geographic areas for incentive payments changed because of a change in the way rurality was measured. This resulted in around 750 locations, mainly outside the edges of major cities (inner regional areas), suddenly becoming eligible for incentives and increasing the incomes of GPs in these areas by an average of 3.8 percent. Our research compared changes in the exits and entries of GPs in these newly eligible areas compared to areas that had always been eligible (other rural areas) or ineligible (that is, major cities) using a difference-in-differences design (Yong et al., 2018). This found no impact on entries or exits of GPs overall, though there was some evidence of an increase in entries for newly qualified GPs who are more mobile than more established GPs. This suggests that incentives should be provided only to newly qualified GPs. GPs already in these newly eligible areas received an increased income but did not change their behaviour. It may also be that the average increase in income of 3.8 percent was insufficient to change their behaviour as suggested by the previous study (Scott et al., 2013). A second study examines the effect of this same policy change on waiting times for non-urgent GP appointments and finds some evidence that the number of GPs in newly eligible practices increased, and this did not lead to lower waiting times for existing patients, but did lead to weak evidence of lower waiting times for new patients (Swami and Scott, 2021). The effects of improving the medical workforce distribution on the health of rural populations has not yet been examined in Australia, with only two studies from Japan and Norway showing causal evidence that a reduction in physician supply in rural areas reduced health outcomes (Iizuka and Watanabe, 2016; Kinge and Grytten, 2021).

Policies to improve the distribution of the medical workforce

Overall, there has been constant development and refinement of a range of different policies to encourage more doctors to work in rural areas with relatively higher need for health care. Evidence on what is effective remains scarce but suggests that a range of policies is necessary. Mandating IMGs to work in rural areas has been, and will remain, important though the effect of the reduction in IMGs because of COVID-19 border closures in 2020 to early 2022 is unknown. Recruitment from, and training of doctors in, non-metropolitan areas is also a key policy. Financial incentives seem to have minimal impact on already qualified doctors, suggesting that it is doctors in training who are more mobile and more responsive to such incentives and who need to be targeted. A key issue where there is much less evidence is the role of telehealth in rural areas to improve access. The scope for reductions in costs (for patients and the health system) is significant though there remain doubts about the quality of care provided by telehealth compared to face-to-face consultations, especially where care is provided by phone rather than video (Snoswell et al., 2021). A final issue is that national policy to improve medical workforce distribution has largely ignored the availability of doctors in low socio-economic status areas within metropolitan areas, even though there is clear evidence that the number of doctors is higher in more affluent areas that have relatively lower need for health care (McIsaac et al., 2015).



CONCLUSIONS

Medicare, private health insurance and the funding of public hospitals do much to reduce out-of-pocket costs and improve access to health care for the Australian population. Yet out-of-pocket costs remain high and Australia scores poorly in international comparisons of access to and equity in health care. Further improvements in access to health care needs to be a key policy issue to improve population health, especially in times of crisis such as pandemics, natural disasters and recessions where the gaps and inefficiencies in the system are laid bare.

The evidence we have presented across the areas of out-of-pocket costs, private health insurance and medical workforce distribution suggests that current government spending will be more effective if more precisely targeted. Medicare subsidies need to be better targeted to those on low incomes. Subsidies for private health insurance premiums need to be better targeted to population groups on lower incomes and to those who are more responsive like the young, whilst the MLS also needs to be better targeted. Policies that lower the costs of private health care are also important to consider. The use of financial incentives to encourage doctors to move to and stay in rural areas also needs to be better targeted to younger doctors who have recently completed training and are more mobile.

A 'one size fits all' approach for government policy might be administratively simple but can be inefficient and inequitable. Improving access to health care for those most in need and those with low incomes should be a priority.



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