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and a New Research Agenda on Medicare

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Abstract

The aim of this Policy Brief is to show what the debate about the GP co-payment has revealed about the state of evidence-based policy in Australia. The co-payment debate has highlighted the central role played by price signals and their impact on health care costs and population health. It has also highlighted how little research existed to inform the co-payment debate, and any future changes to Medicare. A new research agenda around Medicare is required and should be a high priority for the Medical Research Future Fund and the National Health and Medical Research Council.

JEL classification: I11, I18

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Introduction

Given how long Medicare has been in place, it is astonishing how little research has been undertaken on the responses of both patients and doctors to changes in price signals. The development and thinking behind the recently abandoned co-payment policy seems to have relied on a naïve interpretation of economics rather than actual evidence about the role of price signals in health care, which is part of any Health Economics 101 course. Such evidence in Australia is scarce, primarily due to the lack of access by researchers to Medicare data, combined with a lack of independently commissioned research. Having said this, existing international evidence and the limited Australian evidence that exists, combined with a proper application of economic principles in health care, point in one direction: a policy of reducing Medicare rebates could harm health and may not save money.

Australian research confirming the overseas evidence and estimating the scale of these effects, including the full effects on health care expenditures and population health, would have been enormously useful in providing evidence to inform the design of the policy. Such research could have provided a strong analgesic to the past year of political pain. Central to research on the co-payment, and any future changes to Medicare, is a better understanding of the behaviour of patients and doctors. Any future changes to Medicare should also reflect a strong evidence base and it is important to start building this now.

A new research agenda for Medicare

Price signals can play an important role in changing the behaviour of patients and doctors. The co-payment debate is used here to provide an example of the type of evidence needed to inform future changes to Medicare.

What would be the impact on patients?

Reducing the Medicare rebate would increase the out-of-pocket payment to patients for each GP visit. There is overwhelming evidence, from a range of countries and contexts, that increasing out-of-pocket payments will reduce the use of health care services (1).

A reduction in the use of GP services will reduce GPs' revenue (assuming GPs do not change their behaviour). The size of this revenue reduction will depend on the responsiveness of demand to a change in price (the price elasticity of demand). This is a fundamental piece of information that seems to have been largely absent from the debate so far.

The famous RAND Health Insurance experiment found a price elasticity of demand for health care services of between -0.1 and -0.2 ; that is, a 10% increase in price will lead to between a 1% and 2% fall in utilization. Many studies from a range of countries and settings have found estimates close to this (1). In Australia there is little recent evidence about exactly how responsive demand is

to changes in price. McRae in 2008 found a price elasticity of between 0.19 and 0.26, slightly higher than the much earlier US estimates (2).

However, the above refers to averages and we know much less about how this elasticity varies across the population, which is crucial for examining the impact of the policy on different population groups. At the moment there is very little evidence on how the elasticity varies. Patients on higher incomes may have a much lower elasticity, since a \$5 increase in the out-of-pocket cost is a much smaller proportion of weekly income for them than it is for those on low incomes.

We do know that GPs tend to charge higher prices for those on higher incomes (3,4). Table 1 shows that GPs charge more in more affluent areas than in less affluent areas. GPs in low socio-economic status areas also see a larger number of patients per hour compared with those in more affluent areas. The hourly earnings of GPs are higher in low socio-economic status areas.

Table 1. GP characteristics by socio-economic status of area

	Low socio-economic status areas	High socio-economic status areas
Median number of patients seen per hour	3.7	3
Per cent of patients who are bulk-billed	88%	44%
Per cent of GPs who bulk bill all patients	54%	8%
Median GP earnings per hour	\$113	\$89

Notes: The data are from the Wave 6 (2013) MABEL survey. Socio-economic status is that of the postcode of the GP's main place of work. Low socio-economic status areas are defined as the bottom decile (10%) of the SEIFA Index of Relative Socio-economic Disadvantage. High socio-economic status areas are defined as the top decile (10%) of the SEIFA Index of Relative Socio-economic Disadvantage. GP earnings refer to take home pay, i.e. after practice costs but before tax, and include total earnings from all medical work.

Indeed, one of the arguments in favour of the co-payment was that those on higher incomes would not notice a \$5 increase in out-of-pocket cost. If this is the case and patients in affluent areas do not change how often they visit the GP, then GPs in these areas are unlikely to experience a reduction in revenue. These GPs can continue to charge the same price, work the same hours, and provide the same service since individuals will visit just as often as they did before the rebate reduction. Even if GPs do experience a small fall in demand, a small price rise of a few dollars would not be noticed by relatively affluent patients. For this group of patients and GPs nothing much will change, and the government would save money with no knock-on effects to the rest of the system.

However, where demand does fall in response to an increase in out-of-pocket payments (where demand is more 'elastic'), the health status of those visiting doctors less could also fall. Usually in economics a fall in consumer demand is perceived as rational because the services individuals choose not to consume are judged by them as less important ('frivolous consumption') than the services they continue to consume. Individuals are usually best suited to judge whether they really need a good or service or not. But in health care individuals are not

typically good at deciding for themselves, for example, whether a stomach pain is constipation or cancer — they have less information than doctors and cannot diagnose their own symptoms. So although demand will fall, health status may also fall if the service was ‘necessary’ and was likely to improve health. There are a number of studies showing this to be the case (1). This is especially an issue when the reduction in the health of those who no longer visit their GP is greater than the improvements in health of those who do — leading to a net reduction in population health overall. This is more likely to be the case for those on low incomes, who on average have worse health and lower levels of education and health literacy than people on higher incomes. The impact of reducing visits on the health of an average high income individual is likely to be much less than the impact on health of a low income individual.

What is the impact on other health care services?

Those people deterred by a reduction in rebates from visiting their GPs, and who have something serious or preventable wrong with them, may end up presenting to their GP or hospital only after their condition has worsened. In the longer term this will increase health care costs. A final issue regarding patient responses to the reduction in rebates is the extent to which they will switch to other health care providers with lower out-of-pocket costs than their GP. These include emergency departments, community pharmacies, and other general practices. In this regard, the ‘cross-price elasticity of demand’ is where an increase in out-of-pocket costs for GP visits increases demand for these alternative health care providers whose out-of-pocket charges are less. Again, there is little evidence of the size of these elasticities, though the offsets have been found to be concentrated in the most ill populations (1). These cost increases will offset the savings from the rebate reduction to the extent that the Commonwealth funds emergency care, community pharmacies and GP visits. If patients switch to other, cheaper, GPs, this will partially offset the reduction in overall GP revenue such that competition between GPs may increase. But without evidence about the size of these cross-price elasticities we simply do not know the scale of these effects.

How will GPs respond?

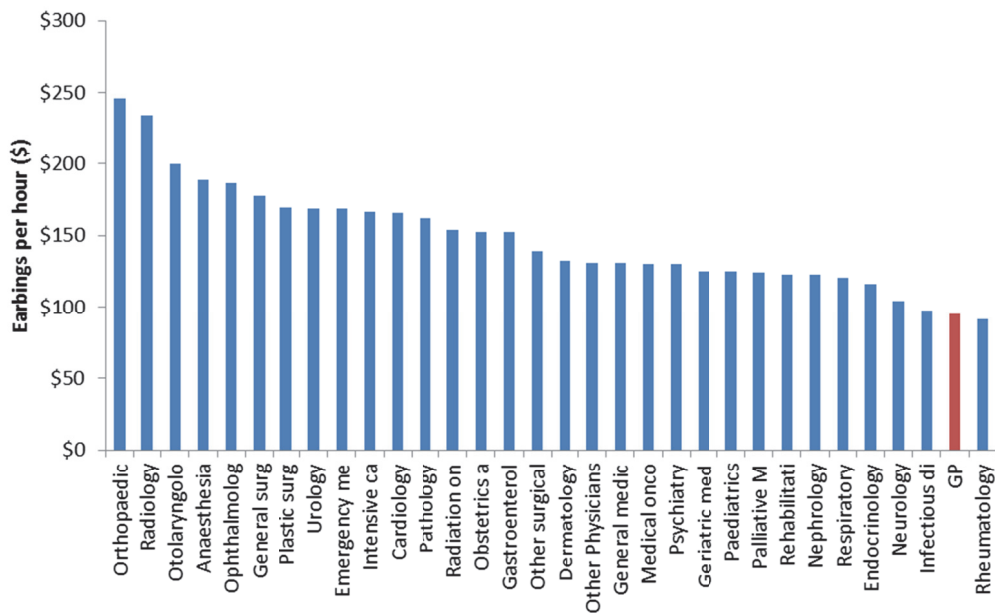
The net effect of a reduction in the rebate on the use of GP services therefore depends on the price elasticity of demand for GP visits, and how this varies by socio-economic group and postcode area. This will determine the extent of the reduction in demand, and therefore GP responses to any consequent reduction in revenue.

Revenues may fall most in more deprived areas where the price elasticity of demand (the extent to which patients respond to the increase in out-of-pocket costs) is highest. These are also likely to be the areas where there are higher rates of bulk-billing. There are several ways GPs could respond, many of which involve them attempting to at least maintain revenue or profit.

- (i) GPs could continue to bulk-bill and have their revenue reduced by \$5 a visit. This will reduce profit (revenue minus costs) if costs don't change.
- (ii) GPs, and the companies which run practices, could reduce practice costs in order to maintain profits. This could include merging or closing some practices which could reduce access to care even further, reduce competition, and potentially lead to further price rises (4). Other ways to reduce costs include limiting pay rises for staff, including salaried GPs or GPs on contract. They could also reduce their use of allied health staff and practice nurses, or merge administrative functions across practices. The behavior of corporate practices will be important in this regard.
- (iii) GPs might change prices, including moving away from bulk-billing. Whether they would increase or reduce prices is unclear. They could increase prices, choose to no longer bulk-bill and charge a co-payment, which may or may not be equal to the rebate reduction. But this could reduce demand even further if the price rise does not cover the additional loss of revenue from a further fall in demand. This depends on the price elasticity. A GP's decisions on price will also depend on what other practices in the area do. Competition may see GPs lower prices to attract patients from practices with higher prices. This will depend on whether the revenue from the extra patients they attract is greater than the loss in revenue from reducing price.
- (iv) GPs may increase revenue by increasing the intensity of services provided so that patients return for follow-up visits. This could increase quality of care in some cases where care is currently underprovided (eg diabetes and chronic disease), or could expose patients to unnecessary tests and investigations and increase the provision of 'low value' or 'frivolous' care. Patients may value this increased attention and thoroughness even if it does not improve their health. This would increase costs to Medicare and partially offset the cost savings from reducing rebates. But we do not know the extent to which this would occur.

Removing funding from general practice relative to other specialties reduces the attractiveness of General Practice as a career and could lead to a fall in the number of GPs in the future. This view is backed by evidence suggesting that reducing GP earnings, and so increasing the gap between the earnings of GPs and specialists, will mean fewer junior doctors choose General Practice as a career (5,6,7). Figure 1 shows that General Practitioners already earn the least per hour of all specialties (\$106 compared to \$298 in orthopaedic surgery).

Figure 1. Median earnings per hour by specialty (2013)



Note: Wave 6 (2013) MABEL survey. Earnings refer to take home pay, i.e. after practice costs but before tax. Includes total earnings from all medical work (public and private). GPs' earnings are based on weighted data for 2,379 GPs. Earnings for specific specialties are based weighted data for between 23 and 268 observations per specialty(2,738 specialists in total)

Earnings become an even more important factor in specialty choice for junior doctors with high levels of education-related debt (6). The proposed deregulation of student fees would likely amplify this effect. These impacts could be tempered by the current emerging oversupply of junior doctors. As this is likely to increase competition for the limited number of specialty training places available, more doctors may choose General Practice despite this not being their preferred specialty, and others could choose to work overseas or another career instead.

Finally, a fall in the proportion of qualified GPs could increase health care costs in the longer term, since there is good evidence that a strong system of primary care is associated with lower health care costs (8). It is also well recognized that the increasing burden of chronic disease will create increased demand for GPs in the future.

Conclusion

Evidence is required to correctly estimate the impact of any change to Medicare on health care expenditures and population health. This evidence is urgently required. Future changes to Medicare should be evidence-based and built on high quality research that provides a much better understanding of how GPs and patients react to financial incentives. That there has been no long-term research on the costs and effects of Medicare, and of changes to it over time, means that Medicare will always be vulnerable in times of economic restraint. Policies that change financial incentives across the health system can have an impact on population health and health expenditures which is similar to that of other

health care interventions, new treatments and technologies and pharmaceuticals. As such, financial incentives should be given a similar priority for research by the Medical Research Future Fund and NHMRC.

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