

## Research Insights

# Private health insurance rebates: Are they working to increase uptake among older people?

As health care costs generally increase with age, it's time to rethink how private health insurance rebates can improve seniors' wellbeing and ease pressure on our public system.

# Age-specific rebate policy to subsidise private health insurances

All Australians are covered by Medicare, which provides free care in public hospitals and subsidises primary care, specialist treatment and medicines. Despite this, every year, the Australian government subsidises the private health insurance (PHI) industry by paying \$6 billion in rebates and \$3 billion to cover private inpatient services.<sup>1</sup> One of the primary goals of the provision of subsidies for PHI is to alleviate the burden on the public system through increased use of private health services.

Given that health care costs increase with age, in principle, the biggest relief to the public health care system could come from increasing PHI coverage among senior Australians. The benefits may come from both the diversion of treatments to the private system, and because it can help seniors avoid long waiting times for treatment and provide better access to allied health services (such as physiotherapy). For these reasons, in 2005 the Australian Government redesigned PHI rebates from a 30 per cent universal scheme to one that increased with age: 30 per cent rebate for those under 65, 35 per cent for those aged 65 to 69, and 40 per cent for those aged 70 and above, regardless of income.

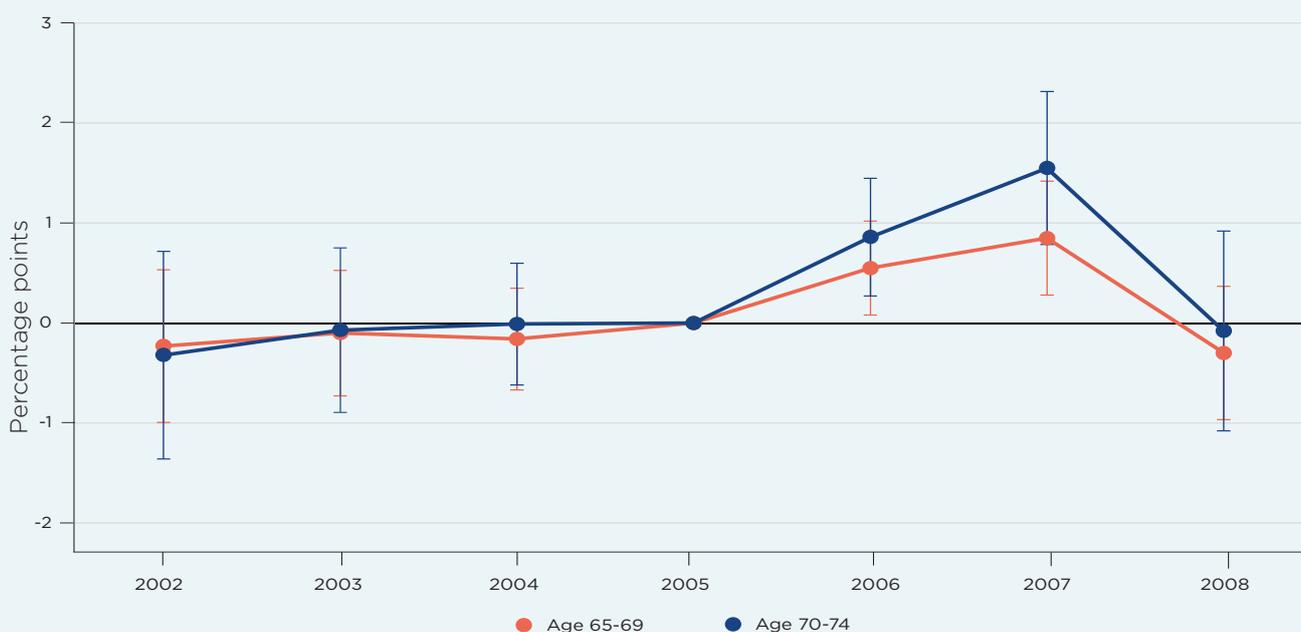
In practice, however, it is unclear whether targeting seniors with higher rebates will encourage them to buy PHI. Seniors' demand for health care increases as they age, and they could benefit more from having access to private care. On the other hand, seniors' income declines with age, and they may be particularly concerned with high out-of-pocket expenses as private patients. Prior studies on the responses to PHI incentives provide little guidance on this issue because they have mainly focused on the general population.<sup>2-11</sup>

Using Australian tax return data from 2001 to 2008, we estimate the policy effects by comparing changes in PHI take-up before and after the rebate changes between seniors (aged 65-74) and a younger comparison group (aged 60-64). We also examine differential effects across subgroups by gender, spousal status, place of residence, and income level.

Price elasticity refers to the degree to which individuals, consumers, or producers change their demand or the amount supplied in response to price or income changes. It is predominantly used to assess the change in consumer demand as a result of a change in a good or service's price.



Figure 1: Impacts of higher rebates on private health insurance uptake among senior Australians



Notes: Data from the ATO Longitudinal Information File (ALife). We compare PHI coverage of tax filers aged 65-69 and 70-74 (eligible for higher rebates), separately, to those aged 60-64 (not eligible for higher rebates) in each year relative to financial year 2005, when the policy was implemented. The estimates control for basic demographic characteristics, individual fixed effects, and year fixed effects. The error bars indicate 95% confidence interval.

# Key Insights

## 1 Higher rebates contribute to moderate increases in PHI take-up

Figure 1 shows the effects of higher rebates on PHI take-up. For those aged 65 to 69, an increase in rebates from 30 to 35 per cent 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 per cent led to a 1.5 to 2.7 percentage point increase in take-up.

## 2 Increase in PHI take-up is short-term

Even though the higher rebates led to moderate increases in PHI take-up among senior citizens, it did not persist over time. The overall increase in take-up among seniors persisted for two years after the policy was implemented. In the third year after the policy implementation, the effects became negligible and statistically insignificant.

## 3 Low income seniors were more responsive to higher rebates

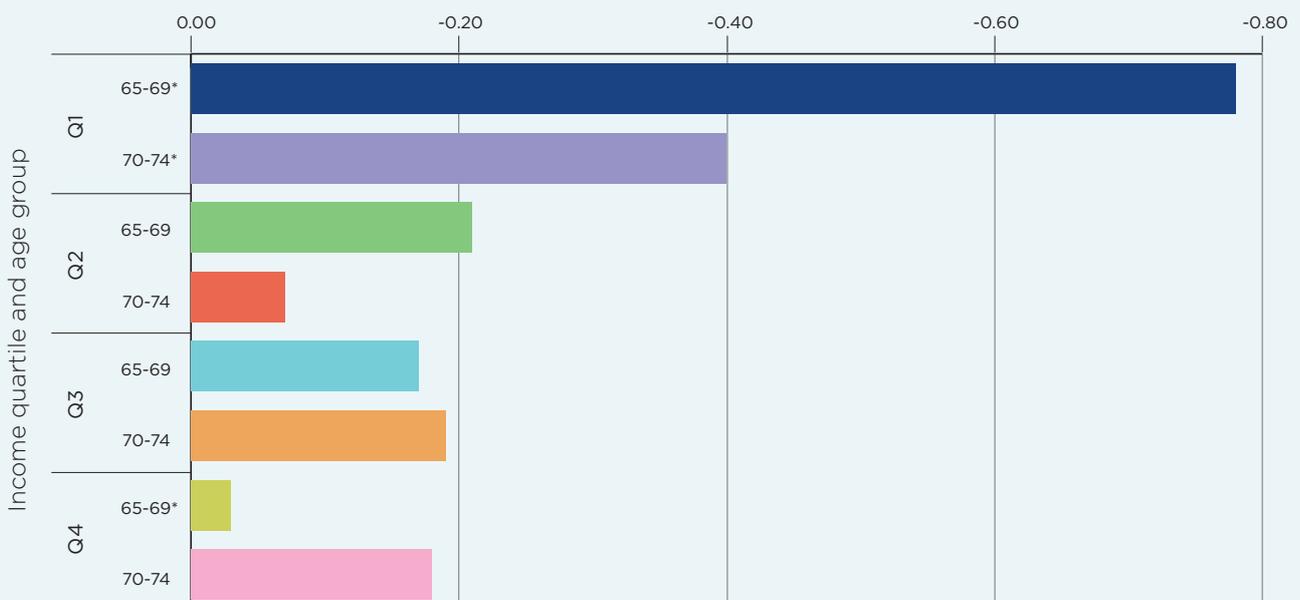
We analysed the data according to the income quartile that sample fell into prior to the rebate policy change (Figure 2). Among seniors in the lowest income group (income less than \$13,171 as of 2004 in our sample, which is equivalent to \$19,413 in 2021's income on the basis of consumer price index rates published by the Australian Bureau of Statistics),<sup>12</sup> a 10 per cent reduction in PHI price increased their PHI take-up by 4 to 8 per cent. In contrast, the effects for the upper three income quartiles were much smaller or statistically insignificant.

It is worth noting that the lowest income group originally had a substantially low PHI coverage rate (around 35 per cent), whereas the other three income groups had a coverage rate of 60 per cent or higher.

This finding is consistent with prior research which shows that low income individuals are more sensitive to premium prices or cost-sharing subsidies.<sup>13-15</sup>

There are no major differences in uptake according to gender, spousal status and place of residence.

Figure 2: Estimated price elasticity for PHI demand of senior Australians by income quartile



Notes: Data from the ATO Longitudinal Information File (ALife). These elasticity estimates are calculated based on the estimated effects of higher rebates in the second year of the policy (financial year 2007), which tend to be the largest effects. Income quartiles are based on individuals' pre-policy taxable income (financial year 2004). The results are similar using two and three consecutive years of pre-policy income data. \* indicates that the estimate is statistically significant at the 95% level.

# More targeted subsidies for low income seniors to increase PHI take-up

We find that higher rebates for senior Australians led to a small increase in their PHI take-up – a 10 per cent reduction in PHI price led to a 1 to 2 per cent increase in take-up. This is smaller than the estimated effects for the general population documented in the literature, which generally range from 2 to 5 per cent increases in PHI take-up in response to a 10 per cent price reduction.<sup>1,2,7,16-20</sup> This suggests that on average seniors are less responsive to PHI price change, partly because seniors may value private treatment more and/or are more risk averse than the general population. We also find that seniors in the lowest income group were much more sensitive to higher rebates, whereas seniors with higher income already had PHI and did not change their decisions much because of higher rebates.

Our findings support the use of income contingent rebates, which were subsequently introduced in 2012. However, the fact that we only find significant responses for those with an income in the bottom 25 per cent suggests a need to recalibrate income contingent rebates to better target that group. For example, in July 2012 the income contingent rebates for those aged 65-69 are phased in at 15 per cent for incomes below \$130,000 (to \$97,000) and reach a maximum of 35 per cent for incomes below \$84,000 – a level way above the highest income for those in the bottom 25 per cent. The implication is that under current settings, many of the rebate recipients are relatively high income earners who would have taken out private health insurance anyway. For them, the rebate represents nothing more than a ‘windfall payment’.

While we suggest a recalibration of existing rebates for people aged 65-69, more evidence is needed before policy makers can consider an extension of income contingent rebates to other age groups. Future research could expand our study by measuring how younger people respond to rebates and whether their responses vary by income. Furthermore, it is critical to examine how PHI rebates eventually affect the choice of hospitals and health outcomes to assess the full costs and benefits of the provision of subsidies.

# Further Information

## Datasets:

This study uses data from the ATO Longitudinal Information File (ALife) during financial years 2001-2008 on a 10 per cent random sample of all individual tax filers. ALife data extract information from tax return forms; importantly, the data track whether a tax filer has full PHI coverage in each financial year. The study focuses on Australian tax filers aged 60 to 74 years, excluding those not residing in Australia. The sample includes 1,612,160 person-year observations for 306,936 unique tax filers. The study compares PHI coverage of tax filers aged 65-69 and 70-74 (eligible for higher rebates), separately, to those aged 60-64 (not eligible for higher rebates) before and after the increase in rebates in financial year 2005.

All findings, opinions and conclusions are those of the authors and do not necessarily represent the views of the Australian Government or any of its agencies.

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## References:

1. Duckett S, Nemet K. The History and Purposes of Private Health Insurance. Grattan Institute 2019.
2. Cheng TC. Measuring the Effects of Reducing Subsidies for Private Insurance on Public Expenditure for Health Care. *Journal of Health Economics* 2014;33:159-79.
3. Doiron D, Fiebig DG, Suziedelyte A. Hips and Hearts: the Variation in Incentive Effects of Insurance across Hospital Procedures. *Journal of Health Economics* 2014;37:81-97.
4. Doiron D, Kettlewell N. The Effect of Health Insurance on the Substitution between Public and Private Hospital Care. *Economic Record* 2018;94:135-54.
5. Einarsdóttir K, Kemp A, Haggard FA, et al. Increase in Caesarean Deliveries after the Australian Private Health Insurance Incentive Policy Reforms. *PLoS One* 2012;7:e41436-e.
6. Eldridge DS, Onur I, Velamuri M. The impact of private hospital insurance on the utilization of hospital care in Australia. *Applied Economics* 2017;49:78-95.
7. Ellis RP, Savage E. Run for cover now or later? The impact of premiums, threats and deadlines on private health insurance in Australia. *International Journal of Health Care Finance and Economics* 2008;8:257-77.
8. Palangkaraya A, Yong J. Effects of Recent Carrot-and-Stick Policy Initiatives on Private Health Insurance Coverage in Australia. *Economic Record* 2005;81:262-72.
9. Palangkaraya A, Yong J. How Effective is "Lifetime Health Cover" in Raising Private Health Insurance Coverage in Australia? An Assessment Using Regression Discontinuity. *Applied Economics* 2007;39:1361-74.
10. Palangkaraya A, Yong J, Webster E, Dawkins P. The income distributive implications of recent private health insurance policy reforms in Australia. *The European Journal of Health Economics* 2009;10:135-48.
11. Stavrunova O, Yerokhin O. Tax Incentives and the Demand for Private Health Insurance. *Journal of Health Economics* 2014;34:121-30.
12. Consumer price index rates. 2022. (Accessed May 12, 2022, at <https://www.ato.gov.au/rates/consumer-price-index/>.)
13. Hinde JM. Incentive(less)? The Effectiveness of Tax Credits and Cost-Sharing Subsidies in the Affordable Care Act. *American Journal of Health Economics* 2017;3:346-69.
14. Keenan PS, Cutler DM, Chernew M. The 'Graying' of Group Health Insurance. *Health Affairs* 2006;25:1497-506.
15. DeLeire T, Chappel A, Finegold K, Gee E. Do individuals respond to cost-sharing subsidies in their selections of marketplace health insurance plans? *Journal of Health Economics* 2017;56:71-86.
16. Bilgrami A, Cutler H, Sinha K, Cheng Z. The Impact of Means-Tested Premium Rebates and Tax Penalties on the Demand for Private Hospital Cover in Australia. *Economic Record* 2021;97:170-211.
17. Butler JRG. Policy Change and Private Health Insurance: Did the Cheapest Policy Do the Trick? *Australian Health Review* 2002;25:33-41.
18. Frech III HE, Hopkins S, Macdonald G. The Australian Private Health Insurance Boom: Was It Subsidies or Liberalised Regulation? *Economic Papers* 2003;22:58-64.
19. Age penalties and take-up of private health insurance. Melbourne Institute working paper series: wp2021n28, 2021. (Accessed May 9, 2022, at <https://melbourneinstitute.unimelb.edu.au/publications/working-papers/search/result?paper=3968390>.)
20. Finkelstein A. The Effect of Tax Subsidies to Employer-Provided Supplementary Health Insurance: Evidence From Canada. *Journal of Public Economics* 2002;84:305-39.