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A poor prescription: higher PBS co-payments are the wrong way to save

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Inquiry into the National Health Amendment (Pharmaceutical Benefits) Bill 2014

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Overview

The 2014 Commonwealth Budget proposed higher patient fees for Pharmaceutical Benefit Scheme (PBS) medicines. Under the changes, most people would pay about \$5 more for each prescription. The increase for concession card holders would be 80 cents. Access to the PBS safety net would be restricted too: thresholds would go up. The threshold for general patients would rise by nearly half over four years.

As we explained in another submission in May, *Out-of-pocket costs: hitting the most vulnerable hardest*, increasing patient out-of-pocket costs is the wrong way to save money. The share of health spending paid directly by Australian patients is unusually high in world terms and is growing fast. It is already preventing some people from getting health care and imposing severe financial burdens on many people, particularly those who are poorer and sicker.

There is strong evidence that out-of-pocket costs stop people getting health care, including necessary care. While they save money in the short term, they mean that some people miss out on care they need. In the long term, government risks paying more.

The evidence is particularly strong for co-payments for medicines. International literature and Australian experience show that increases in out-of-pocket costs mean that fewer people take the medicine their doctor has prescribed.

Co-payments are defended on the ground that charging more will stop people seeking unnecessary care. This is a dubious

argument in general, as people are not qualified to assess their own health – that's why we have health professionals.

The argument is even weaker when it comes to prescribed medicines. PBS co-payments apply to medicine that a doctor has ordered. Unless the doctor is wrong, the medicine is necessary. If the government thinks doctors are getting it wrong, the solution is not to charge patients more. It is to improve prescribing practices.

These changes will put people's health at risk and do little to balance the budget. They would only raise an estimated \$450 million in 2017-18 and this money is earmarked for a medical research fund, not the budget bottom line.

There are much fairer and safer ways to cut PBS spending. This submission shows that we could save over \$580 million a year, starting today, by matching the prices the government pays in England for just 20 drugs. For these drugs, patients would save an average of \$13 per for each box of pills. Instead of shifting costs onto patients, we could save money for both patients and the government. It is a rare opportunity to improve health by spending less.

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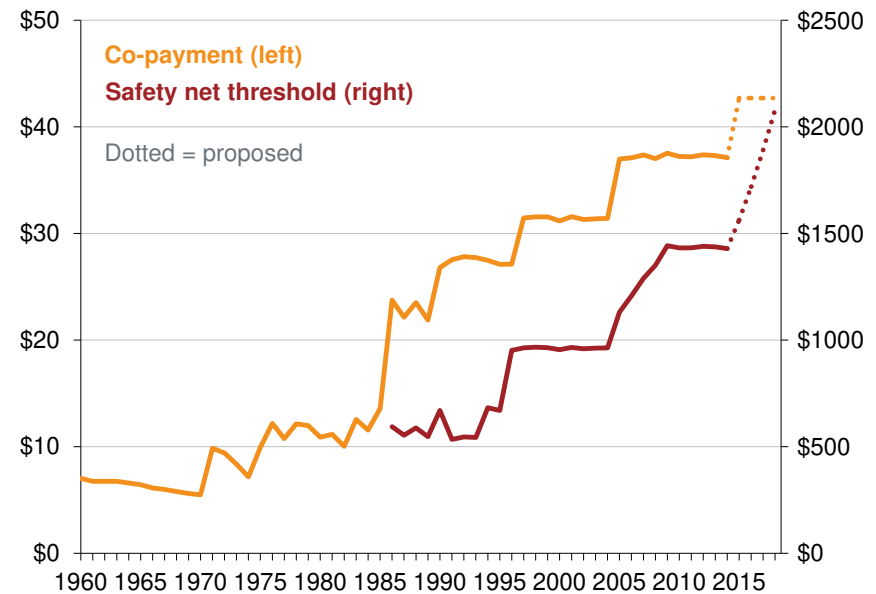
1 Rising costs are hitting vulnerable people

As discussed in another submission in May, Australia relies heavily on out-of-pocket costs compared to other wealthy nations, and these costs are growing fast.¹

PBS medicines are an important part of this picture. Out-of-pocket costs on prescription drugs tripled between 1991 and 2007, leaving us in the middle-to-upper range of OECD countries.² In 2011-12, private spending on benefit-paid drugs accounted for seven per cent of all private spending on health care.³

Some of this growth is due to people using more medicine, and to new medicines becoming available. Yet as Figure 1 shows, successive governments have again and again raised out-of-pocket costs, along with the thresholds at which these costs go down.⁴

Figure 1: Co-payment and safety net threshold, general patients 1960 to 2018 (proposed), 2014 dollars



Note: Adjusted using the consumer price index
Source: Grattan Institute based on Commonwealth of Australia (2014a)

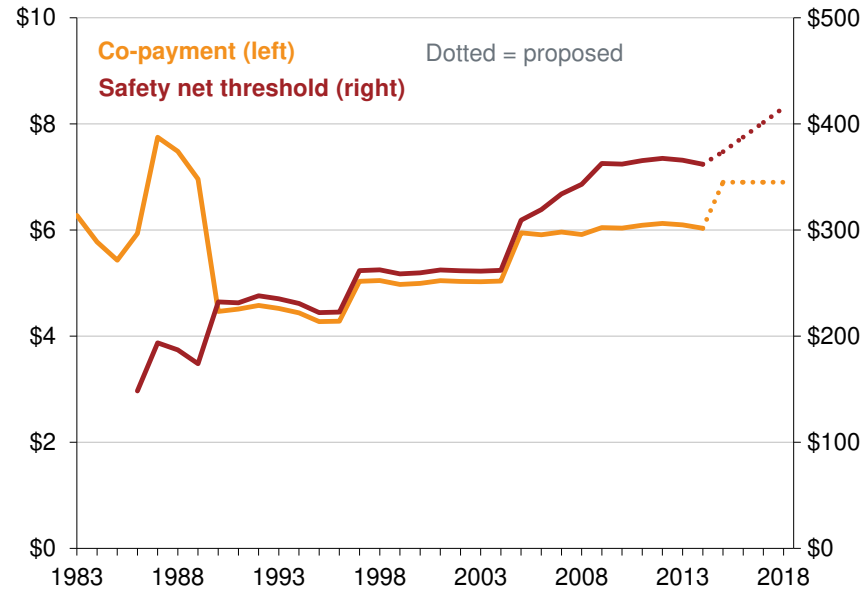
¹ The comparison with other wealthy nations is based on the share of health spending funded through out-of-pocket costs. The submission is available [here](#).

² Kemp, *et al.* (2011)

³ Australian Institute of Health and Welfare (2013)

⁴ Once a patient reaches a certain level of spending in a year, they are eligible for the safety net, paying lower out-of-pocket costs for the rest of the year.

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Figure 2: Co-payments and safety net threshold, concession patients, 1983 to 2018 (proposed), 2014 dollars

Note: Adjusted using the consumer price index

Source: Grattan Institute based on Commonwealth of Australia (2014a)

Over the last 10 years, patient fees have gone up by a fifth in real terms.⁵ For general patients the safety net threshold has gone up by nearly half (48%). This means people have to spend much more before their out-of-pocket costs fall. The result is significantly reduced support for sicker people who need more drugs.

⁵ Fee increases are 18% for general patients, 20% for concession card holders.

While the last five years have been relatively stable, the Budget proposals would mean another big jump of about 15 per cent in out-of-pocket patient fees.⁶ Meanwhile, the safety net thresholds for general patients would go up by another half (46%), but this time over four years instead of a decade. The threshold would rise by 15 per cent for people with a concession card.

In the short run, the changes would save the government money by shifting costs onto patients. But further increases in co-payments will also lead to fewer people taking their medicine, as the next chapter will show. Already, Australians are reporting that out-of-pocket costs for medicine are a problem. In a survey of sicker adults, more than 15 per cent of Australians reported not taking medicines due to cost, the second highest among 11 countries (Figure 3).

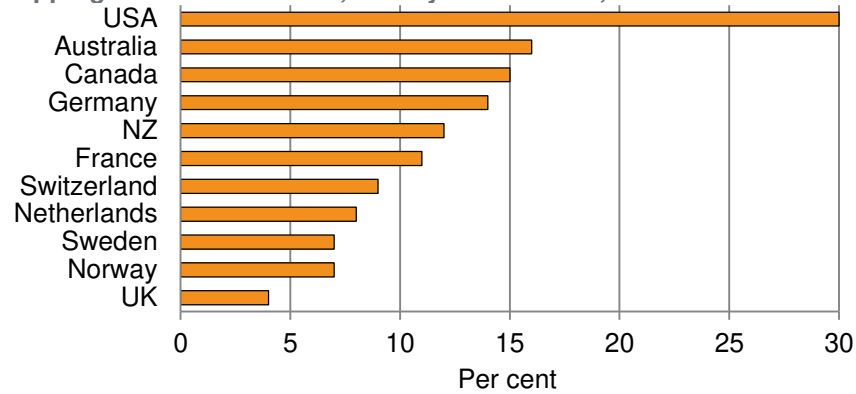
Out-of-pocket costs would have a bigger impact not only on sicker people but on poorer households.⁷ While they spend less in dollar terms, the poorest households are far more likely to have a very large proportion of their disposable income eaten up by prescription drug costs (Figure 4).

⁶ 15% for general patients, 16% for concession card holders.

⁷ See our [previous submission](#).

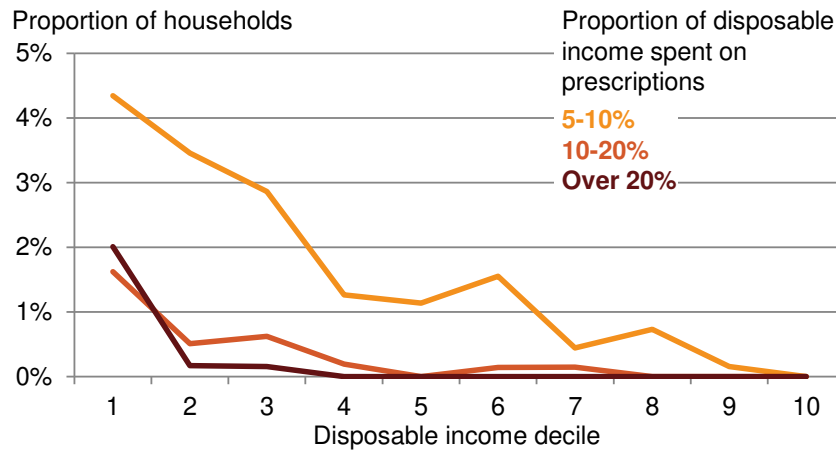
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Figure 3: Sicker adults that report not filling a prescription or skipping doses due to cost, surveyed countries, 2011



Source: The Commonwealth Fund (2011)

Figure 4: Disposable income spent on prescriptions by disposable income decile, 2009-10



Source: Grattan Institute

2 Higher fees = less medicine

There is extremely strong evidence that co-payments stop people getting the medicines that their doctor ordered. A recent systematic review looked at 19 studies in nine countries. All but two of these studies found that co-payments reduce the number of people who take medications their doctor ordered (Figure 5).

Because governments often move co-payment fees up or down, many of these studies use natural experiments – they check whether the number of people getting prescriptions changed after co-payments rose or fell.⁸ Similarly, several Australian studies looked at the impact of co-payments rising by more than 20 per cent in 2005.⁹

In line with the international literature, these studies found that higher co-payments are linked to significantly lower use of medication. One study looked at dispensing rates for two common types of drug: protein pump inhibitors, or PPIs, that reduce stomach acid; and statins that lower cholesterol.

⁸ Most use regression analysis to correct for other causes of change in medicine use, such as growth in prescribing over time.

⁹ Another literature review that focuses on prescription medicine cost sharing also found that cost sharing is strongly associated with reduced patient medicine use, Goldman, *et al.* (2007).

Figure 5: Studies on the effect of co-payments on use of prescription medicines, 1990 to 2011

Country	Data	Design	Method
Studies finding co-payments reduce use of prescription medicines			
Australia	1987-1994	Natural experiment	Regression
Australia	1987-1994	Natural experiment	Regression
Sweden	1995	Observational study	Regression
Canada	1992-1996	Natural experiment	Regression
Russia	1996	Observational study	Regression
Canada	1993-1997	Natural experiment	Regression
Canada	1994-1997	Natural experiment	Regression
Canada	1995-1997	Natural experiment	Instrumental variable
Israel	1993-1998	Natural experiment	Regression
Denmark	1999-2001	Natural experiment	Regressions-discontinuity
Canada	1996-2002	Natural experiment	Instrumental variable
Italy	1997-2002	Natural experiment	Difference-in-difference
Denmark	2000-2003	Observational study	Regression
Spain	2004	Observational study	Regression
Italy	2001/03/06	Natural experiment	Difference-in-difference
Spain	2004-2006	Natural experiment	Difference-in-difference
Czech R	2007-2009	Natural experiment	Descriptive comparison
Studies finding no effect			
Canada	1991-1993	Natural experiment	Descriptive comparison
Canada	1994-1998	Natural experiment	Regression
Studies finding increased use: none			

Source: Kiil and Houlberg (2013)

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After co-payments rose in 2005, dispensing for these drugs fell across Australia -- in cities and towns, and wealthier and poorer areas alike (Figure 6).¹⁰ The falls for PPIs were particularly dramatic – rates fell by 14 to 16 per cent in cities, inner regional and outer regional areas.

A similar Western Australian study that included asthma drugs found that dispensing rates fell by up to five per cent for general patients. For people with a concession card, dispensing rates for asthma drugs and PPIs fell by nearly 10 per cent (Figure 7).

Health professionals prescribe drugs for a reason, so there are health consequences when people stop taking them. Numerous studies have found a link between patient co-payments for drugs and higher rates of hospital visits and even deaths.¹¹

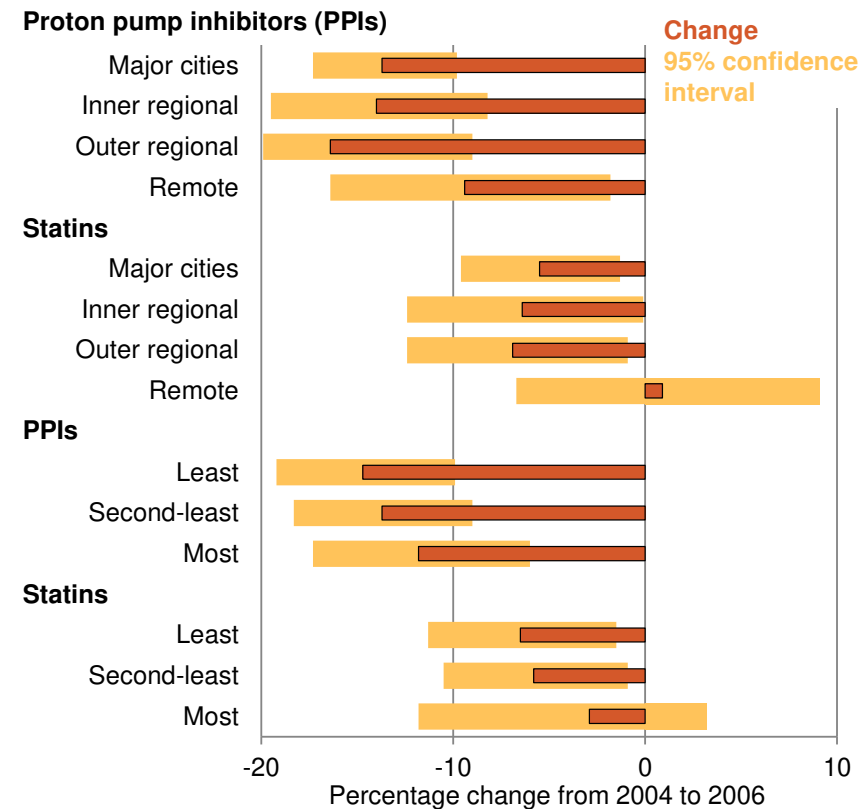
High cholesterol can lead to heart attacks, strokes and loss of mobility.¹² Untreated ulcers can lead to surgery or even death. The link between co-payments, patients not taking medicine, and health problems is so strong that a number of US studies look at the health benefits that could come from *reducing* co-payments. Of course the US context is different, but given the demonstrated link between higher co-payments and lower medicine use in Australia, this research should still be taken into account.

¹⁰ The only exception was statin use in remote areas which rose very slightly, but this may be a statistical artefact due to the smaller sample size.

¹¹ See Tamblyn, *et al.* (2001); Hsu, *et al.* (2006). A comprehensive literature review also found that for people with chronic illness higher co-payments are linked to greater use of hospital services, Goldman, *et al.* (2007). For a summary of evidence, see Swartz (2010)

¹² Mobility can be reduced through peripheral vascular disease.

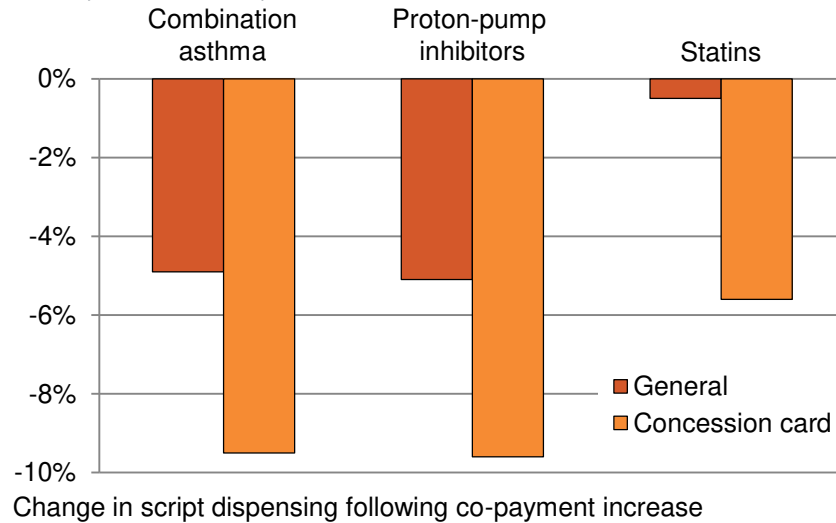
Figure 6: Change in dispensing by remoteness and disadvantage, Australia, 2004 to 2006



Notes: Change is relative to expected rates based on regression analyses.
Source: Kemp *et al.* (2013)

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Figure 7: Changes in script dispensing after co-payment increase in 2005, 2000 to 2007, Western Australia



Source: Hynd et al. (2009)

A summary of research by the think tank RAND states that:

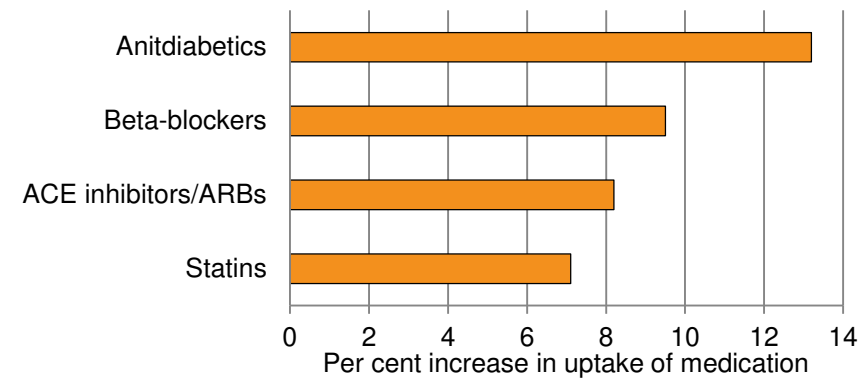
... prescription drug prices are one of the most powerful policy levers available for improving compliance and managing treatment of chronic illness. But historical trends that have increased co-payments in lockstep with rising prices do many patients a disservice, and in some cases they increase overall health care costs.¹³

¹³ RAND (2009)

One US study found that removing co-payments for cholesterol-lowering drugs would lead to more patients taking them, and fewer hospital visits, saving \$1 billion.¹⁴ Higher fees reduce use of medicines, but this saving can be offset by longer-term costs for patients, their families, the health system and government.

The link between higher co-payments and lower medicine use is clear. So are the dangers of not taking prescribed medicines, both for patients and for health care costs. If there were no other way to save money in the health care system, we might have to consider this option. Yet a much better alternative exists, as the following chapter shows.

Figure 8: Effect from decreased co-payments on medication adherence, 2004–2005, USA



Source: Chernew et al. (2008)

¹⁴ Goldman, et al. (2006)

3 Cut costs, don't shift them

There is a fairer and safer way to reduce expenditure on the PBS. As Grattan Institute's 2013 report, *Australia's bad drug deal*, has shown, our drug prices are far higher than those in New Zealand and England.¹⁵

For this submission we updated our earlier analysis of drug prices. We looked at 20 drugs and found that, on average, Australia's prices are 7.2 times those the English government pays.¹⁶ For two of the drugs, we pay over 20 times more (Figure 9).

On these drugs alone, the government could save more than \$580 million a year by matching England's prices. For one drug, omeprazole, Australia's price is lower, but not by much.¹⁷ The half-a-billion in savings includes paying higher prices for this drug.

If the current price disclosure policy brings the cost of drugs down over time, it would reduce the savings from benchmarking.¹⁸ But we shouldn't hold our breath for a good deal. In December 2013, price disclosure reduced the cost of seven drugs we benchmarked. Yet for these drugs, Australia's prices are still more

than 12.5 times those in England. The reductions in 2014 average only 23 per cent. That cut would have to be more than 30 times bigger to close the gap between Australian and English drug prices.¹⁹

Unlike price disclosure, savings from benchmarking against international best practice are certain and immediate. Benchmarking is far simpler than collecting, verifying and analysing data from drug companies and wholesalers, which may or may not ultimately result in price reductions.²⁰

It's also possible for Australia to do even better than our estimate. This analysis only looked at a small number of drugs; others will also be over-priced. We may also be able to get a better deal than England. New Zealand's drug prices are much lower. We previously estimated that matching them could save the government more than \$1 billion a year.²¹

By contrast, the proposed increase in out-of-pocket costs would only raise about \$450 million in 2017-18.²² We could save more, and do it sooner, by cutting costs instead of shifting them onto consumers. Government and consumers would both win.

¹⁵ England and Wales through the National Health Service.

¹⁶ The methodological appendix explains selection and analysis.

¹⁷ Australia's price is only lower for one drug, omeprazole, where our price is 24% lower. This is negligible considering that our prices for the other drugs are, on average over 690% higher. Matching England's price for this drug would cost \$14 million a year, while matching the other prices would save \$596 million. Not only are these losses small, in practice it is unlikely that benchmarking would involve raising Australian prices when they are lower.

¹⁸ Price disclosure is explained in Duckett, *et al.* (2013).

¹⁹ For price disclosure cuts, see Commonwealth of Australia (2014b). The comparison is for wholesale (ex-manufacturer) prices.

²⁰ Price disclosure is also subject to a range of complex exemptions and rules, see Duckett, *et al.* (2013)

²¹ Duckett, *et al.* (2013)

²² According to Budget estimates.

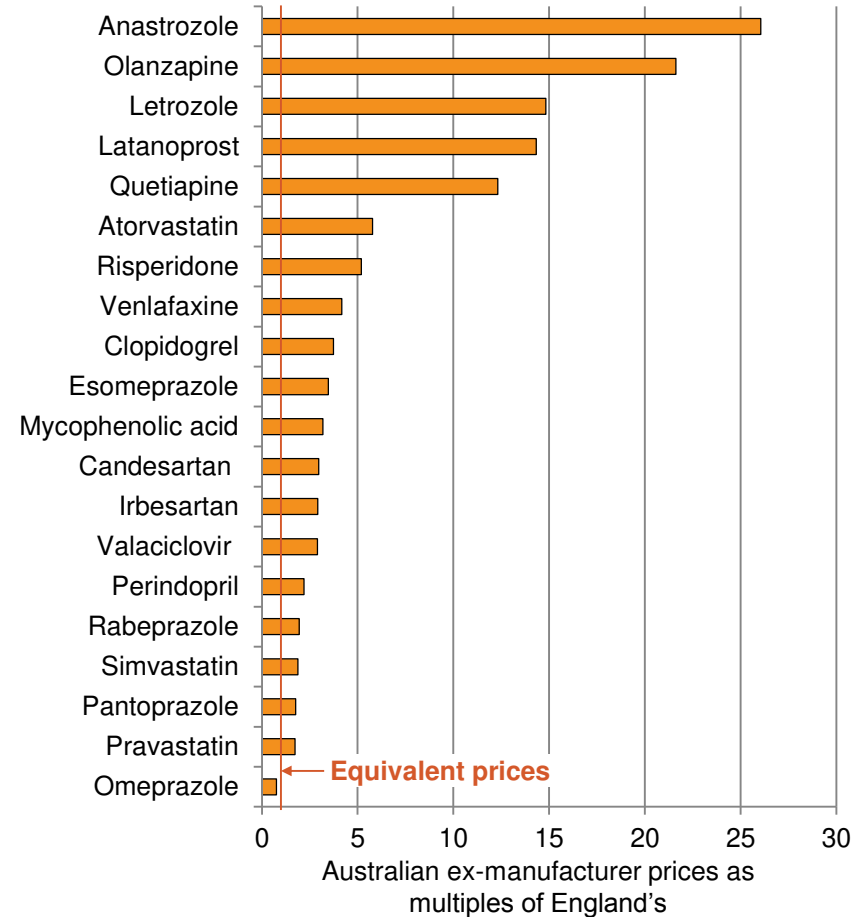
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On average, patients would save 13 dollars for every box of pills (Figure 11).²³ It would be easier, not harder, for people to afford their medicines. Instead of pushing up costs for patients and the hospital system, we could help to keep costs down.

A better deal on drug prices would create challenges for the community pharmacy industry.²⁴ But the change would be manageable if pharmacists could provide more services and, if necessary, receive temporary, targeted industry support.²⁵ There could still be plenty of savings for medical research, the budget bottom line, or providing more and better health care.

As our previous submission states, there are other problems with the co-payment and safety net system, particularly how government support is targeted. This will be a topic of future Grattan Institute research.

Figure 9: Australian ex-manufacturer prices as multiples of England's, 2014



Source: Grattan Institute

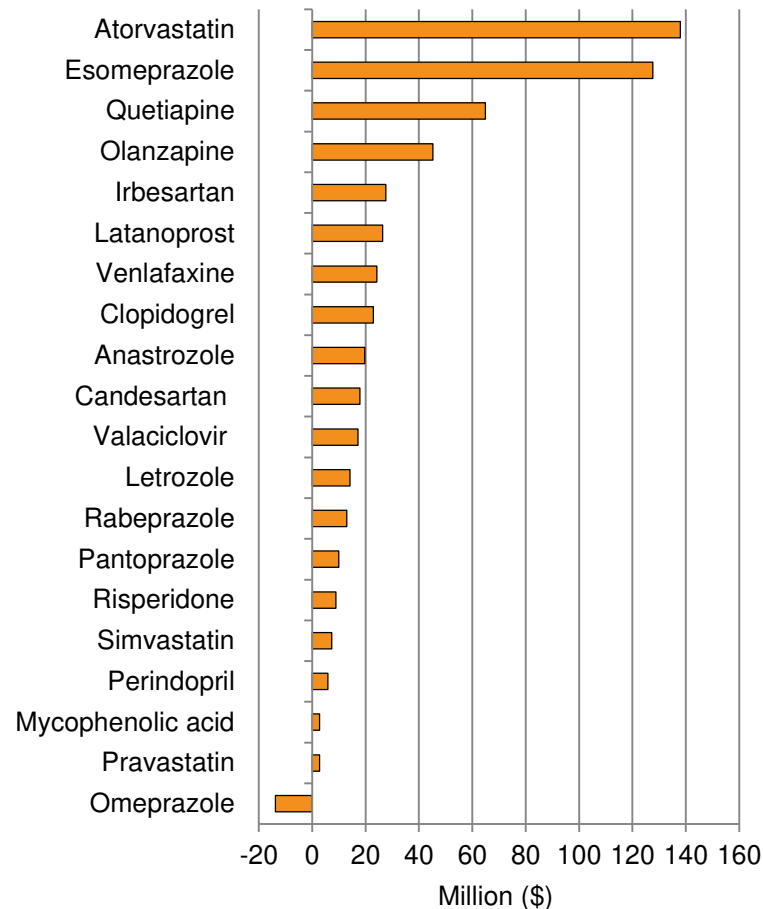
²³ Assumes prescriptions are dispensed separately. See the methodological appendix for more detail.

²⁴ Duckett, *et al.* (2013) explains why any concerns about the impact of more competitive Australian prices on pharmaceutical company profits are misplaced.

²⁵ An example is providing vaccinations, repeat prescriptions and chronic care advice in rural areas with too few GPs. See Duckett and Breadon (2013).

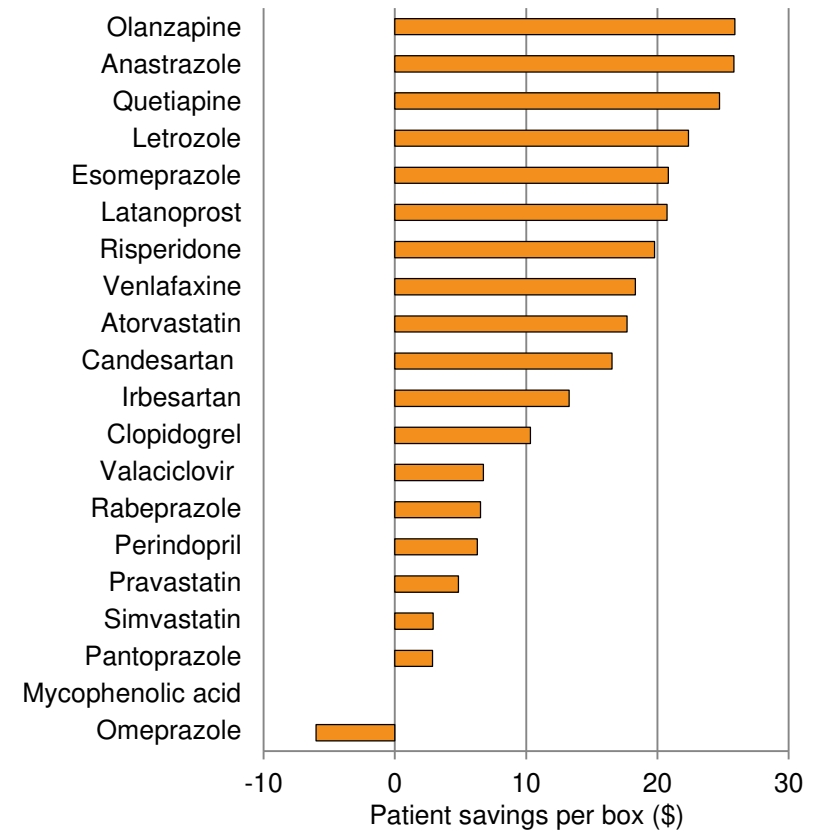
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Figure 10: Government savings from adopting Engalnd's prices, 2014



Note: Savings are based on 2012-13 drug volumes. No savings for Buprenorphine due to zero recorded Australian volume for equivalent products.
Source: Grattan Institute

Figure 11: Savings per box of medicine under England's prices for general patients below the safety net, 2014



Note: Assumes one box per purchase
Source: Grattan Institute

4 Methodological appendix

For the comparison with England's drug prices, we looked at all drugs in Australia's top 50 by government expenditure that are also in England's Category M list of readily available drugs.²⁶ We added three drugs from previous benchmarking work: anastrozole, letrozole and mycophenolic acid.

Unlike in our previous benchmarking, we benchmarked all available doses instead of using a nominal dose. In some cases the same doses were not available in England. When two pills added up to the Australian dose, we assumed that patients would purchase two boxes of pills for the same effect. This was only done for seven doses (in total) of three drugs: venlafaxine, pravastatin and quetiapine. We excluded any cases where doses could be matched by taking more than two pills a day, or by splitting pills.

We only analysed tablets and capsules (not patches or solution for injections), except for lantanoprost, where the only form is eye drops.

Out of 51 doses which were benchmarked, in three cases English capsules were compared to Australian tablets. For four doses (in total) of quetiapine and venlafaxine, modified release doses were compared with two pills that were not modified release and contain the same number of milligrams.²⁷ For two doses, orally

disintegrating pills were replaced with non-orally disintegrating pills.

We do not consider these changes significant. However, if they were all excluded, the savings would be reduced by just under \$21 million, or 3.6 per cent of the total.

To calculate the savings, we applied:

- current prices
- 2012-13 prescription volumes
- 2013-14 average exchange rates (this results in lower savings than using either two or three-year averages)
- wholesale mark-up
- pharmacy mark-up
- ready-prepared dispensing fee.

We assume that no discretionary fees (such as the safety net recording fee or the discretionary mark-up), or therapeutic premiums, brand premiums, dangerous drug fees or extemporaneously prepared fees apply and that each purchase is for only one item.

Values for individual drugs (price comparisons and patient savings) are averages for doses weighted by prescription volume. Patient savings are all for general patients below the safety net.

²⁶ Buprenorphine is on both lists, but there were no sales of buprenorphine in Australia in a form also available in the Category M list.

²⁷ In other words, standard quetiapine and venlafaxine are taken twice daily, totalling the same milligrams as one modified release pill.

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References

Australian Institute of Health and Welfare (2013) Health expenditure Australia 2011-12, AIHW, accessed <http://www.aihw.gov.au/publication-detail/?id=60129544658>,

Chernew, M. E., Shah, M. R., Wegh, A., Rosenberg, S. N., Juster, I. A., Rosen, A. B., Sokol, M. C., Yu-Isenberg, K. and Fendrick, M. A. (2008) 'Impact of decreasing copayments on medication adherence within a disease management environment', *Health Affairs*, 27(1), p 103-112

Commonwealth of Australia (2014a) 'Fees, Patient Contributions and Safety Net Thresholds History of PBS Copayments and Safety Net Thresholds', from <http://www.pbs.gov.au/info/healthpro/explanatory-notes/front/fee>

Commonwealth of Australia (2014b) 'Price Reductions for 2014 Main Cycle', accessed 16 July 2014, from <http://www.pbs.gov.au/info/industry/pricing/eapd/price-reductions-04-2014>

Duckett, S. and Breadon, P. (2013) Access all areas: new solutions for GP shortages in rural Australia. Grattan Institute Report, September., Grattan Institute from <http://grattan.edu.au/static/files/assets/31e5ace5/196-Access-All-Areas.pdf>

Duckett, S., Breadon, P., Ginnivan, L. and Venkataraman, P. (2013) Australia's bad drug deal: high pharmaceutical prices, Grattan Institute from http://grattan.edu.au/static/files/assets/5a6efeca/Australias_Bad_Drug_Deal_FIN_AL.pdf

Goldman, D. P., Joyce, G. F. and Karaca-Mandic, P. (2006) 'Varying pharmacy benefits with clinical status: the case of cholesterol-lowering therapy', *American Journal of Managed Care*, 12(1), p 21

Goldman, D. P., Joyce, G. F. and Zheng, Y. (2007) 'Prescription drug cost sharing: associations with medication and medical utilization and spending and health', *Journal of the American Medical Association (JAMA)*, 298(1), p 61-69

Hsu, J., Price, M., Brand, R., Ray, G. T. and Fireman, B. (2006) 'Cost-Sharing for Emergency Care and Unfavorable Clinical Events: Findings from the Safety and Financial Ramifications of ED Copayments Study', *Health Services Research*,

41(5), p 1801-1820

Hynd, A., Roughead, E. E., Preen, D. B., Glover, J., Bulsara, M. and Semmens, J. (2009) 'Increased patient co-payments and changes in PBS-subsidised prescription medicines dispensed in Western Australia', *Australian and New Zealand Journal of Public Health*, 33(3), p 246-252

Kemp, A., Glover, J., Preen, D. B., Bulsara, M., Semmens, J. and Roughead, E. E. (2013) 'From the city to the bush: increases in patient co-payments for medicines have impacted on medicine use across Australia', *Australian Health Review*, 37(1), p 4-10

Kemp, A., Preen, D. B., Glover, J., Semmens, J. and Roughead, E. E. (2011) 'How much do we spend on prescription medicines? Out-of-pocket costs for patients in Australia and other OECD countries', *Australian Health Review*, 35(3), p 341-349

Kiil, A. and Houlberg, K. (2013) 'How does copayment for health care services affect demand, health and redistribution? A systematic review of the empirical evidence from 1990 to 2011', *The European Journal of Health Economics*, 1-16,

RAND (2009) Prescription Drug Cost Sharing: A Powerful Policy Lever to Use with Care, RAND from http://www.rand.org/content/dam/rand/pubs/research_briefs/2009/RAND_RB9474.pdf

Swartz, K. (2010) Cost-sharing: effects on spending and outcomes., Robert Wood Johnson Foundation from http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2010/rwjf402103/subassets/rwjf402103_1

Tamblyn, R., Laprise, R., Hanley, J. A., Abrahamowicz, M., Scott, S., Mayo, N. and J., H. (2001) 'Adverse events associated with prescription drug cost-sharing among poor and elderly persons', *Journal of the American Medical Association (JAMA)*,

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The Commonwealth Fund (2011) 'Commonwealth Fund International Health Policy Survey of Sicker Adults in Eleven Countries', from <http://www.commonwealthfund.org/publications/surveys/2011/nov/2011-international-survey>