

May 2014

Out-of-pocket costs: hitting the most vulnerable hardest

Grattan Institute submission to the Senate Standing Committee on Community Affairs
Inquiry into the out-of-pocket costs in Australian healthcare

By Stephen Duckett and Peter Breadon

Out-of-pocket costs

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Overview

- The Commonwealth Budget proposed increases to out-of-pocket costs for visiting a doctor and getting prescription medicines and tests.
- Yet, Australian patients already pay a bigger share of health care costs than patients in almost any other wealthy country, and these costs are rising fast.
- Many people already miss out on health care because of cost: 5 percent skip GP visits, 8 per cent don't go to a specialist, 8 per cent don't fill their prescription and 18 percent don't go to the dentist.
- This will happen more when fees go up, making some people sicker and creating long-term costs.
- The amount people pay for health care varies greatly. Too many poorer and sicker people already fall through the safety net. In particular, people with the least disposable income and people who use many different types of care often face extremely high out-of-pocket costs.
- In one in 10 of the poorest households that pay out-of-pocket costs, those fees eat up over 20 cents in every dollar of the household budget.
- There are better ways to cut health care costs, starting with negotiating lower drug prices and updating workforce roles.
- Instead of shifting costs to patients, we should focus on protecting people on very low incomes and people with many health problems.

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Out-of-pocket costs

1 Out-of-pocket costs: high and rising

Patients can be charged out-of-pocket fees for Medicare services, for example to visit a GP or specialist doctor or get blood or imaging tests. Such fees are determined by the medical practitioner and are not regulated as part of the Medicare Benefits Schedule. There are also fixed out-of-pocket fees for drugs on the Pharmaceutical Benefits Scheme (PBS). Once patients spend a certain amount each year, 'safety nets' reduce these payments, or refund some of the cost. There are lower fees and safety net thresholds for people on concession cards.¹

Other aspects of health care, such as allied health services or medical equipment, also involve out-of-pocket costs. There is no safety net for these fees (except where allied health fees are controlled by a Chronic Disease Management Plan). People with private health insurance may get a rebate for these costs from their insurer.

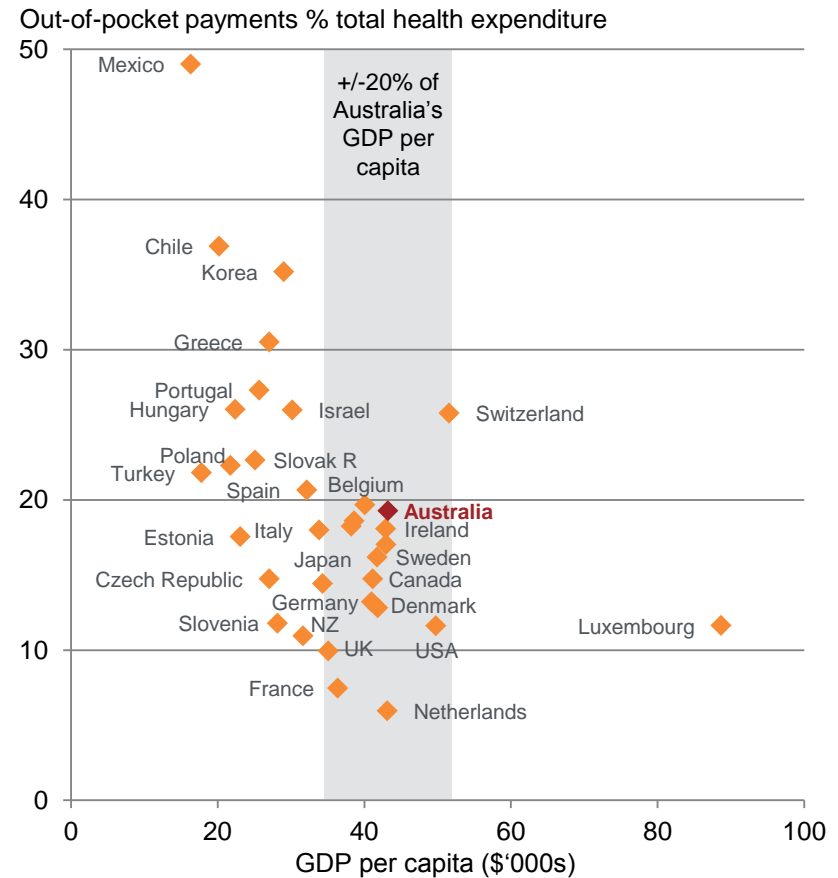
It is important to note that out-of-pocket fees are not the only costs that individual patients pay. Getting care often involves travel costs or time taken away from paid work or child care, particularly when out-of-hours services are not available.

1.1 Patients carry much of the load

Compared to many countries, Australian consumers contribute a lot through fees: almost one fifth of all health care spending.

¹ In this submission this refers to people with Pensioner Concession Card, Health Care Card, Commonwealth Seniors Card and people who receive Family Tax Benefit (Part A).

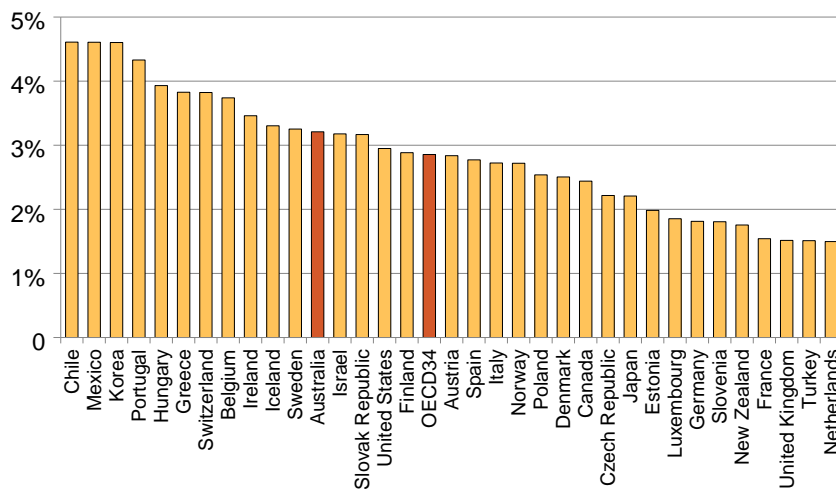
Figure 1: Out-of-pocket payments and GDP, 2011 or nearest year



Out-of-pocket costs

Australia is ranked in the middle of the OECD for the proportion of health costs paid for with out-of-pocket fees. Compared to 17 other wealthy countries, however, we have the third highest reliance on these payments. Only Switzerland and Belgium outstrip Australia. Only Switzerland is much higher (Figure 1). Rates are far lower in the UK, Canada and New Zealand. The amount Australians pay as a proportion of their household expenditure is also relatively high (Figure 2).

Figure 2: Average per person expenditure on out-of-pocket health costs, as proportion of household consumption, 2011 (or nearest)

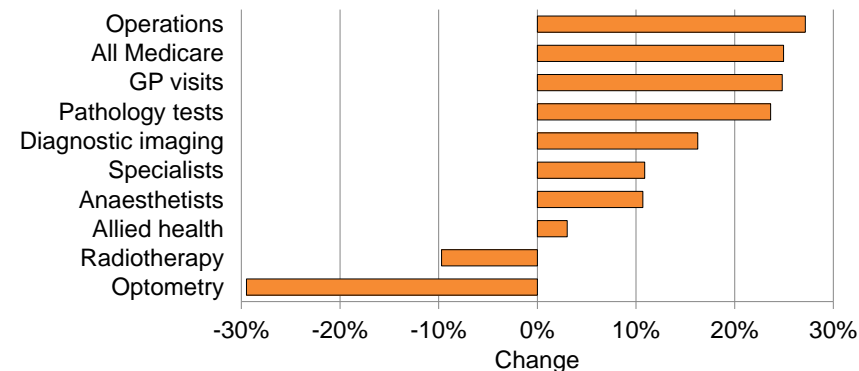


Note: Does not include private health insurance.
Source: OECD

1.2 Out-of-pocket costs are rising fast

Since 2007, average out-of-pocket payments for Medicare services have risen by a quarter in real terms. All but three categories (optometry, radiology and practice nurse items) have risen, with most going up by more than 10 per cent (Figure 3).²

Figure 3: Real increase in out-of-pocket costs, 2007-2013



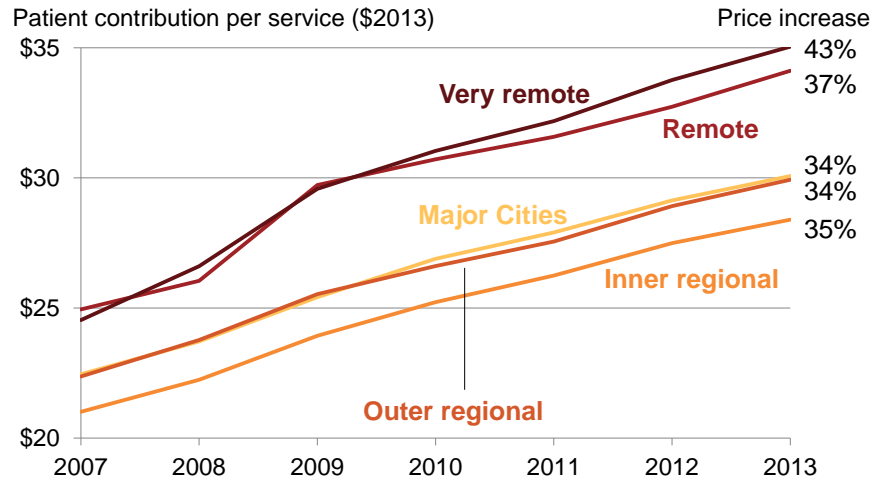
Note: Adjusted using the consumer price index.
Source: Department of Health (2014)

Fees have risen throughout Australia, but they have grown fastest in very remote areas. Figure 4 shows the change for GP visits. For all Medicare services, the lowest growth has been in cities, at 24 per cent, rising to 41 per cent in very remote areas (Figure 5). As discussed below, the problems faced by rural Australians may be related to an under-supply of health care providers, leading to less competition to reduce costs.

² Department of Health (2014)

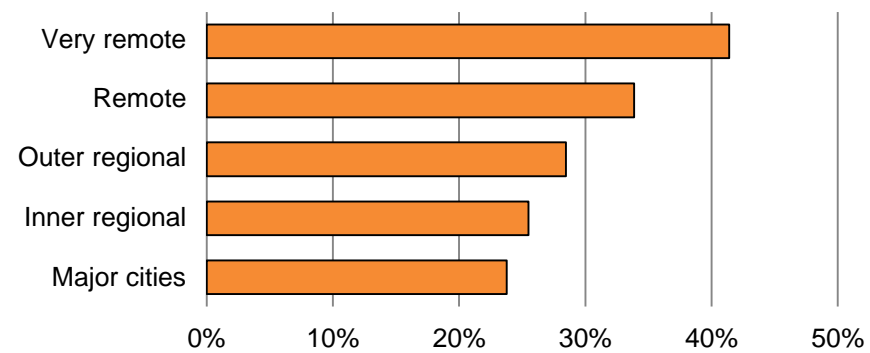
Out-of-pocket costs

Figure 4: Real increase in patient GP payment, 2007-13



Source: Department of Health (2014)

Figure 5: Real increase in Medicare fees, by remoteness, 2007-13



Source: Department of Health (2014)

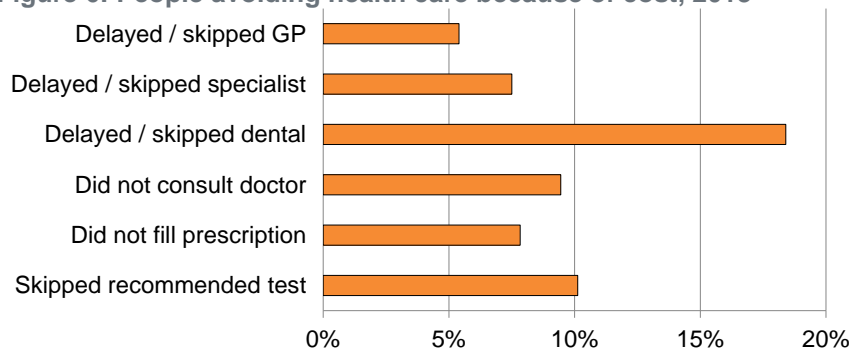
2 A burden for many, a barrier for some

High and rising out-of-pocket costs are one reason that a sizeable minority of people avoid health care. The impact is greater for people on low incomes, in rural areas and who have poorer health status and disabilities.

2.1 An important barrier to care

An Australian Bureau of Statistics survey found that over one in 20 of people need to see a GP but don't go because of cost.³ The proportion is eight per cent for specialists and 18 per cent for dentists. Other surveys find higher rates. One found that one in 10 Australians didn't see a doctor because of cost (Figure 6).

Figure 6: People avoiding health care because of cost, 2013

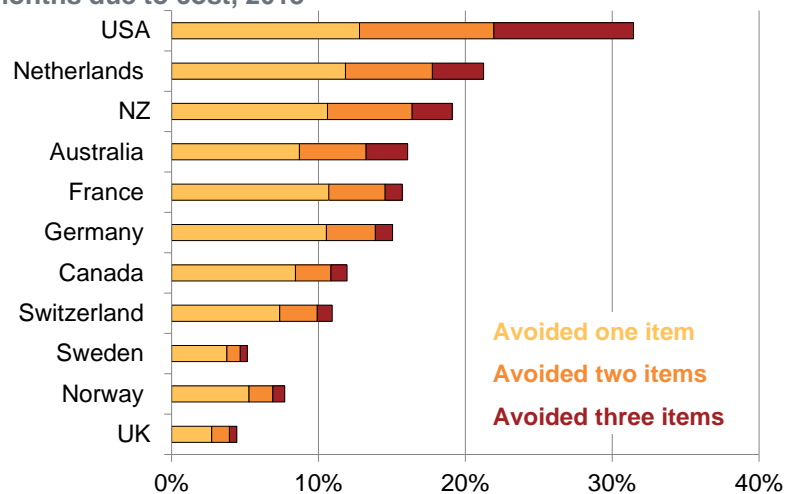


Sources: First three measures, ABS (2013), remainder, The Commonwealth Fund (2013)

³ Australian Bureau of Statistics (2013) The rate at which women avoid care is higher than for men: 6.7 per cent compared to 4.0 per cent.

Australians are more likely than people in many other countries to avoid consulting a doctor, or getting a recommended treatment, test or medicine (Figure 7). More than 16 per cent of Australians have avoided at least one of these because of the expense. Three per cent avoided all of them. Out of 11 surveyed countries, we rank fourth for avoiding health care because of cost.

Figure 7: Proportion of people who avoided medical care in last 12 months due to cost, 2013



Note: 'Items' refer to patients who have avoided consulting a doctor, avoided recommended treatment or tests, and/or avoided filling in a prescription
Source: The Commonwealth Fund (2013)

Out-of-pocket costs

2.2 Cost barriers are highest for poorer, sicker people and people in remote areas

Poorer people

People reporting incomes much below average are 65 per cent more likely to avoid seeing the doctor because of cost. They are twice as likely to avoid filling a prescription or getting tests.⁴ This is probably because health costs take up a bigger proportion of income in these households.

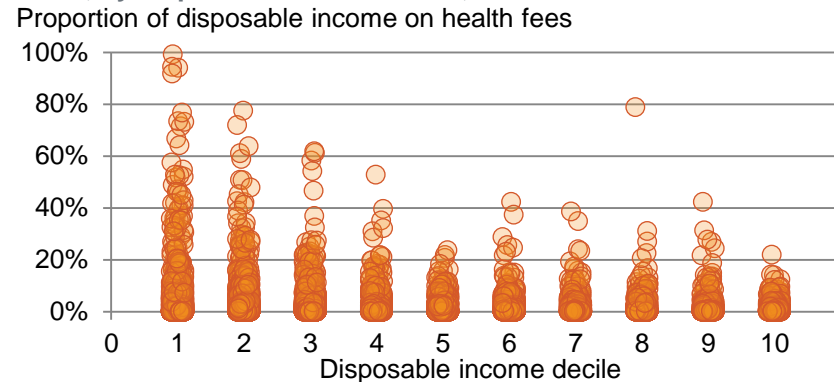
In all income groups, a significant minority of people spend a very large proportion of their disposable income on health fees, sometimes well over half (Figure 8). This is much more common for poorer people. Of the poorest households that pay out-of-pocket costs, one in 10 spend more than 20 per cent of their disposable income on out-of-pocket health costs (Figure 9).⁵

Some types of care place a greater burden on poorer households. For the lowest disposable income decile, average fees for specialists are nearly four times the average GP fee. Dentist fees are nine times GP fees. It is also striking that, for services where fees are unregulated and there is very limited Medicare coverage (such as dentists and physiotherapists) the poorest households pay similar out-of-pocket fees to the national average (Figure 10).

⁴ 93% and 110% more likely respectively. Grattan Institute analysis of The Commonwealth Fund (2013).

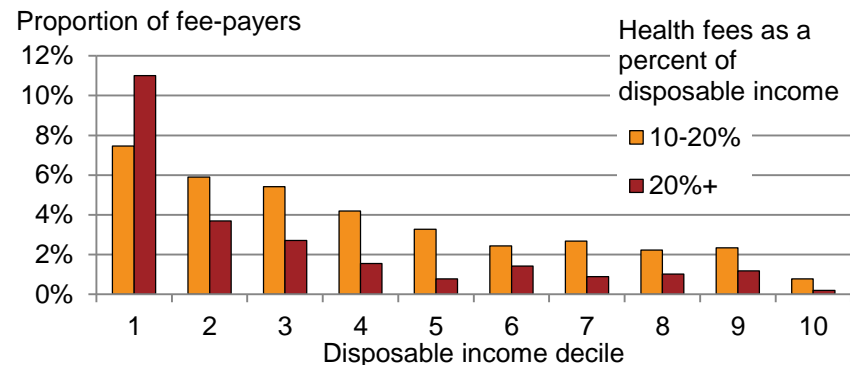
⁵ Among all bottom-decile households, the figure is 6%. Bottom decile households are less likely to face fees, but a significant minority still do for GPs (8%) specialists (12%) dental (7%) and prescriptions (38%). All comparisons are among people who pay fees. Sources and methods are detailed in the methodological appendix.

Figure 8: Proportion of disposable income spent on out-of-pocket costs, by disposable income decile, 2009-10



Notes: GP, Specialist, Dental, Optometry, Physio, Other provider, Prescriptions, Equipm't.
Source: Grattan Institute using Australian Bureau of Statistics (2011)

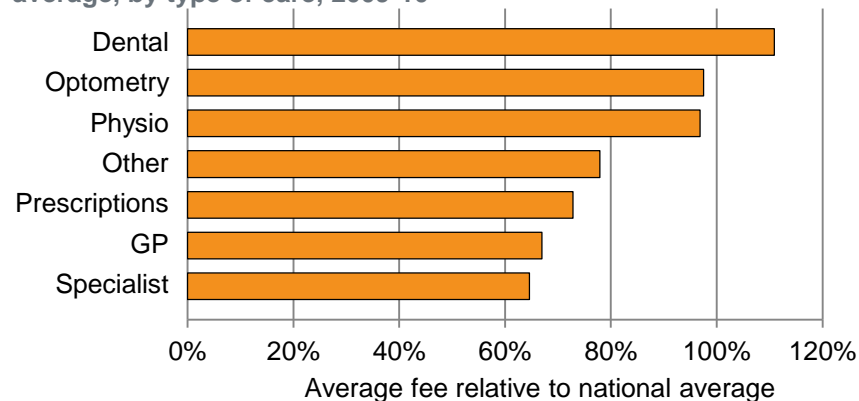
Figure 9: Proportion of people with high out-of-pocket costs by disposable income decile, 2009-10



Notes: GP, Specialist, Dental, Optometry, Physio, Other provider, Prescriptions, Equipm't.
Source: Grattan Institute using Australian Bureau of Statistics (2011)

Out-of-pocket costs

Figure 10: Average fee for lowest decile compared to national average, by type of care, 2009-10



Notes: GP, Specialist, Dental, Optometry, Physio, Other provider, Prescriptions, Equipm't.
Source: Grattan Institute using Australian Bureau of Statistics (2011)

Sicker people

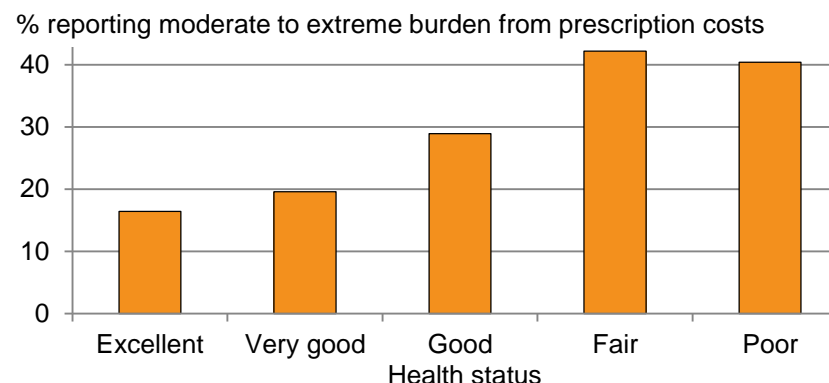
Worryingly, sicker people also struggle to access health services because of cost. People with poor or fair self-assessed health, and people with a long-term health condition, are much more likely to avoid going to the GP because of cost than are people with better health.⁶ Not surprisingly, the more prescription drugs a person has to take regularly, the more likely they are to avoid filling a prescription due to cost.⁷ In a study in the Hunter Region of New South Wales, people who reported fair or poor health were

⁶ For health status, the difference is 7% versus 4% not seeing a GP at least once in the last year due to cost. For long-term health conditions it is 6% versus 3%, Australian Bureau of Statistics (2013)

⁷ The Commonwealth Fund (2013)

more than twice as likely to report a moderate or extreme financial burden from prescription costs (Figure 11).

Figure 11: Financial burden from prescription costs by health status, 2007, Hunter Region (NSW)



Source: Searles et al. (2013)

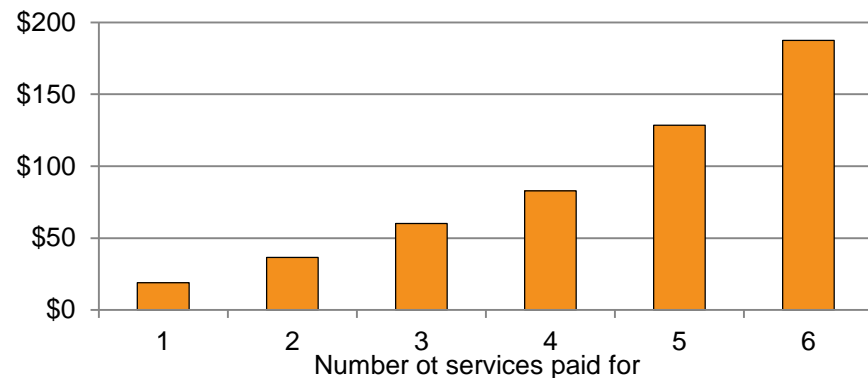
Our own analysis shows that as people get more different kinds of healthcare (such as seeing a GP and a specialist, as well as filling a prescription), out-of-pocket costs increase steadily. Households that use six kinds of healthcare pay almost 10 times more than households that use only one (Figure 12).

This indicates yet again that people with more types of illness are hit hardest by out-of-pocket costs. Safety nets are supposed to catch people who need more care because of their health problems. For many people with chronic or multiple health conditions, these safety nets don't seem to be working well enough. As the proportion of people with multiple health problems is set to rise quickly, this is a serious concern.

Out-of-pocket costs

Figure 12: Average weekly out-of-pocket costs by number of types of service used, 2009-10

Average weekly out-of-pocket fees (for people facing fees) (2009-10)



Note: Types are: GP, Specialist, Optician, Physiotherapist, Prescriptions, Dental and Health Practitioner not elsewhere classified.

Source: Grattan Institute using Australian Bureau of Statistics (2011)

People in remote areas

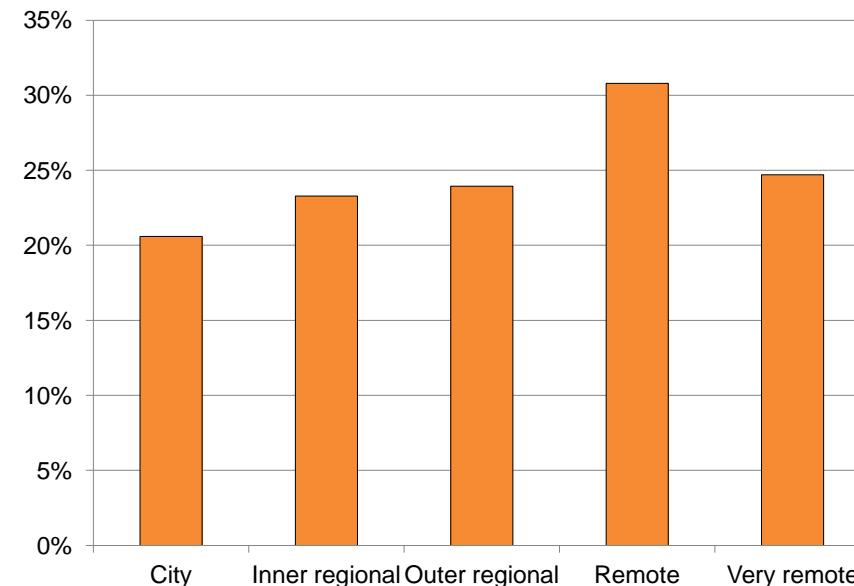
Four per cent of people in major cities avoid seeing a GP, compared to five per cent in other parts of Australia.⁸ Part of the reason is probably that rural areas face higher out-of-pocket fees and lower rates of bulk-billing (Figure 13).⁹

⁸ Australian Bureau of Statistics (2013)

⁹ As discussed in a previous Grattan report on access to primary care in under-served rural areas, *Access all areas*, bulk billing decreases as GP services per person go down.

Previous Grattan analysis found a strong link between the scarcity of GP services and the rate of bulk billing.¹⁰ GPs are less likely to bulk bill when there are fewer GP services per person in an area, possibly because they face less competition. As discussed above, not only are fees often higher in rural Australia, they have also been growing faster.¹¹

Figure 13: Visits not bulk billed, by remoteness, 2010-11



Source: Department of Health and Ageing (2012)

¹⁰ Duckett, *et al.* (2013b)

¹¹ [Reference charts above]

3 What happens when co-payments increase?

3.1 The Commission of Audit and the Budget

The Commission of Audit proposed abolishing bulk-billing and introducing of mandatory co-payments, set for most people at around half the scheduled fee for a GP. Their proposals included:

- mandatory fees for general patients of \$15, and a minimum of \$7.50 after the safety net threshold is reached
- mandatory fees for concession card holders of \$5 and \$2.50 (minimum) once the safety net threshold is reached or after they had received 15 services in a year
- doubling the General Extended Medicare Safety Net threshold to \$4000
- raising PBS co-payments by \$5 for general and concessional care patients (to \$41.90 and \$11)
- raising the PBS safety net threshold by around \$200
- imposing a PBS co-payment of \$2 for concession card patients above the safety net (there is currently no charge for these patients).¹²

¹² The General Extended Medicare Safety Net provides 80% of out-of-pocket expenses for out-of-hospital costs in a year after the threshold has been reached up to a maximum amount for each service. The current GEMSN threshold is

The 2014 Commonwealth Budget has since proposed co-payment increases starting from July 2015:

- a co-payment of at least \$7 for GP consultations and out-of-hospital pathology. Concession card holders and children will also pay the fee, capped to the first 10 services. Of this, \$5 of every \$7 will go to a new medical research fund.
- an extra \$5 towards the cost of each Pharmaceutical Benefits Scheme (PBS) prescription, with concession card holders paying an extra 80 cents.

The Budget also proposes a two-year freeze on some Medicare Benefits Payments, which could prompt providers to increase out-of-pocket charges.

3.2 What are the savings?

The Commission of Audit argued that co-payments have two benefits: raising revenue from patients and reducing demand for unnecessary or overused services.¹³

around \$1250 for general patients. It is expected to rise to \$2000 in 2015. See Appendix for more information.

¹³ In the words of the Commission: "Co-payments send a clear price signal that medical services come at a cost. This may help to reduce demand for unnecessary or overused services, as well as encouraging individuals to take greater responsibility for paying for some of the cost commensurate to their health care decisions." Commission of Audit (2014).

Out-of-pocket costs

The first claim is true, so long as co-payments are collected as intended. However, there is a risk that doctors will refuse to collect these fees. The Commission proposed a ban on doctors waiving fees, which may be hard to implement. It is unclear from the Commission of Audit whether the increased revenue would be passed on to the Commonwealth government (through a reduction in GP rebates, for example) or retained by GPs.

The second claim is only partly true. Research suggests that higher patient fees reduce the number of people getting Medicare-funded services.¹⁴ However, it is very unlikely that only unnecessary or overused services will be affected – the reduction is likely to include some beneficial services as well.

While Commonwealth Government spending will fall in the short-term, initial savings could be offset by other costs the changes would create. These costs, described in the following section, may even exceed the savings.

3.3 What are the costs?

Costs from missing out on necessary care

Co-payments do reduce visits to GPs and specialist doctors, as well as the proportion of patients that buy medicine their doctor has prescribed. However, co-payments reduce worthwhile care as well as unnecessary care.

For co-payments to target only unnecessary care, patients would have to know, before evaluation by a health professional, how

¹⁴ [Cite review] This research is discussed further in the following section.

serious their problem is. Typically, they can't. There is also some empirical evidence that co-payments reduce worthwhile care.

First, co-payments have a bigger impact on people who have more health problems, as discussed above. Arguably, these people are more likely to benefit from health care.

Second, co-payments reduce the use of medicines and tests that a patient has been prescribed and that they presumably should be taking. International reviews of the literature, US studies and several Australian studies have found this.¹⁵ As Figure XX shows, there were significant declines in dispensing for several drugs after co-payments were increased by 24 per cent in 2005. The changes were biggest among people with concession cards.

Failing to take drugs that have been prescribed by a doctor can have serious health consequences, leaving governments with higher costs. One US study estimates that removing co-payments for cholesterol-lowering drugs would result in more patients taking them, saving \$1 billion from avoided hospital visits.¹⁶

The Budget also announced additional out-of-pocket payments for pathology tests and radiography. Doctors order these tests to help them make a diagnosis. As with prescribing drugs, these are interventions that doctors chose to order, based on their expertise. If people avoid these tests due to cost – and people already report doing this – illnesses might not be discovered and opportunities for treatment and prevention might be missed.

¹⁵ Lexchin and Grootendorst (2004); Hynd, *et al.* (2009); Kemp, *et al.* (2013); Kill and Houlberg (2013)

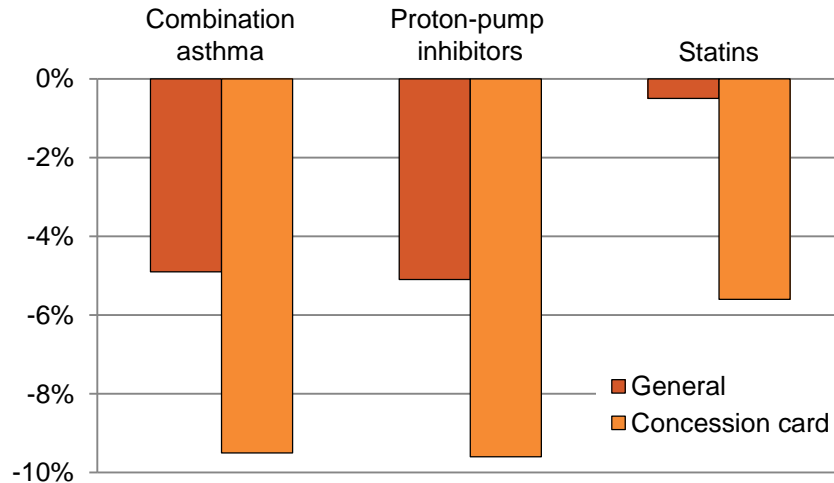
¹⁶ Goldman, *et al.* (2006)

Out-of-pocket costs

Finally, previous Grattan research found that people who live in areas with low access to GPs are more expensive to treat in hospital. The cost difference remains after correcting for the effects of remoteness, patient health problems, hospital characteristics and a wide range of other factors (Figure 15).

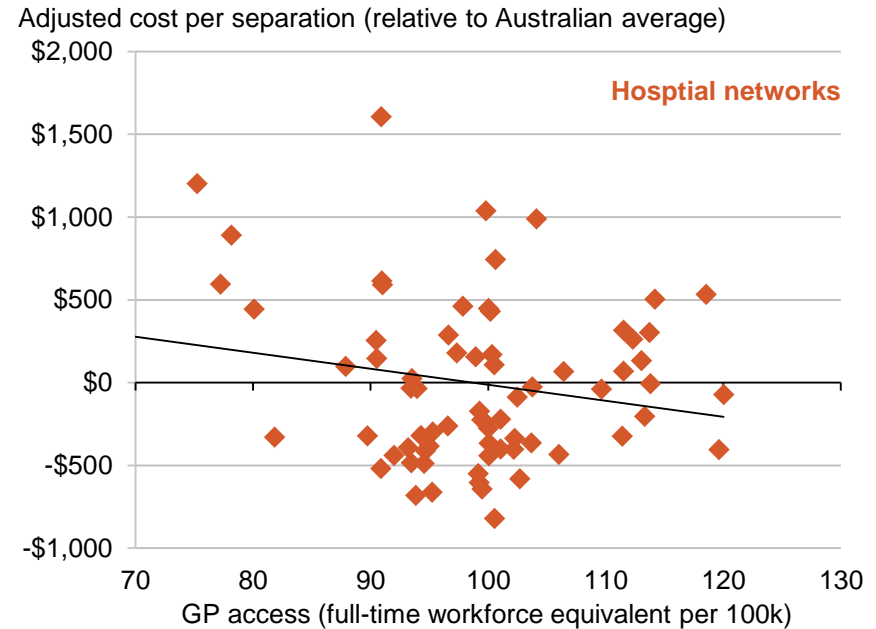
In other words, health problems get worse when they are not detected or treated, resulting in longer stays or more treatments in hospital. There are likely to be further costs from hospital visits that could be avoided altogether with primary care.

Figure 14: Changes in script dispensing after co-payment increase in 2005, 2000 to 2007, Western Australia



Change in script dispensing following co-payment increase
Notes: Extrapolates from trends prior to the policy change in January 2005.
Source: Hynd et al. (2009)

Figure 15: The relationship between access to GPs and hospital treatment costs, by local hospital network, 2010-11



Notes: Adjusted for a wide range of patient and hospital characteristics, including diagnosis related group, age, indigenous status, remoteness, Charlson score and hospital scale, scope and specialist status. See Access all areas for more information.
Source: Duckett, S. et al. (2013b)

Out-of-pocket costs

The financial costs from missing out on care go well beyond the health system. If people get sicker, they are less likely to work, which cut tax revenues and hurt government budgets. They may also need more support from carers and other kinds of government services.

Shifting demand to hospitals

There is little evidence about whether people are more likely to go to a hospital emergency department if they face higher co-payments at the GP.¹⁷ However, it seems likely. The Commission acknowledges the risk, suggesting that states impose co-payments at emergency departments in response. The Budget adopted this proposal.

Any shift of patients from GPs to emergency departments will end up costing government much more.¹⁸ The Medicare rebate for the most common type of GP consultation, which lasts up to 20 minutes, is \$36.30. The average cost of a non-admitted level 5 triage visit to a hospital – a likely substitute for a GP visit – is \$290.¹⁹

¹⁷ There is little evidence on the impact of co-payment on substitution between types of health service. What does exist tends to focus on the impact of pharmaceutical co-payments on use of other services. Kiil and Houlberg (2013)

¹⁸ From 2014 to 2017 the costs of additional emergency department visits are shared by the Commonwealth (45%) and states. After 2017, the current National Health Reform Agreement indicates that the costs of additional visits are shared equally. The Budget has proposed replacing this arrangement.

¹⁹ According to the national efficient price, Independent Hospital Pricing Authority (2014)

Introducing emergency department co-payments would be hard to do fairly and efficiently, particularly in the context of broader public hospital funding cuts. More importantly, it is unlikely to work. International literature suggests that unlike at GP clinics, specialist clinics and pharmacies, co-payments *do not* reduce demand at hospital emergency departments.²⁰

Fairness

Aside from direct financial consequences for governments, co-payments have a much bigger impact on vulnerable people. In response to co-payments, poorer and sicker people reduce their use of health care more than healthier, wealthier people. Increasing patient fees ever more will make the system even more unfair.

²⁰ Kiil and Houlberg (2013)

4 What should change?

Increasing out-of-pocket payments is not a good way for the Government to save money. Individual patients already meet an unusually large proportion of our health costs and fees have been growing fast. Already, many people struggle to meet out-of-pocket costs. Raising them further could create new costs from lower access to care and increased hospital visits.

Grattan Institute has proposed other ways to cut health care costs that should be pursued first. These include negotiating lower prices for drugs on the PBS, updating health workforce roles to increase efficiency and improving public hospital pricing.²¹ Just the PBS changes would save the Commonwealth about \$1 billion a year without many of the serious risks involved in increasing out-of-pocket costs.²²

To take one example, the Budget shifts costs to patients by increasing fees for prescriptions. By contrast, Grattan's recommendation of benchmarking prices against other countries would reduce costs overall, saving money for both the Government *and* patients.

While we should look elsewhere for savings, there are four problems with out-of-pocket costs that need to be fixed.

People on very low incomes aren't protected well enough

A significant minority of people in the lowest income deciles are paying a very large proportion of their income in out-of-pocket health care costs. At the same time, a large proportion of subsidies go to people on higher incomes.

Means-testing is crude and poorly targeted

There are only two tiers for our safety nets: general patients and concession card holders. Rather than smoothly tapering support, the cut-off between categories affects many lower and middle-income households. In addition, eligibility for support isn't always tied to ability to pay. About 80 per cent of mature age households with a million dollars in net assets receive welfare benefits, often making them eligible for concession card rates.²³

Some services have much higher out-of-pocket costs

Dental, medical specialist and allied health care have the highest fees overall, and particularly for lower-income households. These are the areas where policy to constrain fees is most limited.

²¹ Duckett, *et al.* (2013a); Duckett, *et al.* (2013b); Duckett, *et al.* (2014a); Duckett, *et al.* (2014b).

²² The other changes would also have longer-term fiscal benefits for the Commonwealth.

²³ Daley, *et al.* (2014). The Budget included some superannuation income in the eligibility test for the Health Care card, as recommended in the Commission of Audit's Recommendation 15, Commission of Audit (2014).

Out-of-pocket costs

People who need a variety of health services often face extreme costs

Safety nets are supposed to keep total out-of-pocket expenses from getting too high. However, some people have health needs in several different areas, covered by separate Medicare and PBS safety nets, or in areas with no safety net (such as dental care). These people often face high out-of-pocket costs simply because they have a many health problems.

Proposing specific policy solutions for these problems is beyond the scope of this submission. However, the analysis in this submission suggest that we should consider safety nets that are broader, covering more kinds of services, and that are better at protecting the most vulnerable. We hope to develop detailed recommendations on this issue in the coming months.

5 Methodological Appendix

To measure the financial burden of out-of-pocket costs, we used the Australian Bureau of Statistics Household Expenditure Survey (Confidentialised Unit Record File).²⁴

The data relate to expenditure and income for the entire household. All data are weekly, however, the question on health expenditure refers to expenditure over the last three months. This means that average weekly costs are usually below the cost of a typical service. The data do not include payments which were bulk billed, fully refunded or had not yet been paid. Unless otherwise specified, values refer to fee-payers (excluding zero values).

The expenditure category of Optometry includes spending on spectacles. The category of Physiotherapy includes chiropractic services. The category of Equipment includes hire and purchase. Household weightings were used to calculate disposable income deciles.

There are 9774 respondents. Sixteen were excluded due to having negative values for weekly disposable income. Two outlier expenditure values were removed: a reported weekly expenditure of over \$1300 on prescription drugs and a reported weekly expenditure of over \$2200 on specialists.

Twenty-two households with reported disposable income of zero were given disposable income values of one. This allowed results

on the proportion of household income spent on out-of-pocket costs to be included for those households.

When these and other very-low income households face out-of-pocket fees, they generate extreme results for 'the proportion of disposable income spent on out-of-pocket costs'. For this reason, we do not report the average of this figure for income deciles.

However, median values for fee-payers in different deciles show that extreme values are not driving the pattern we identified: people in the bottom decile paying significantly higher out-of-pocket costs relative to disposable income (see Figure 16). While households in the bottom decile pay lower out-of-pocket costs, they are still close to those paid by the second decile and are only 65 per cent of the median fee (\$15) of the entire sample.

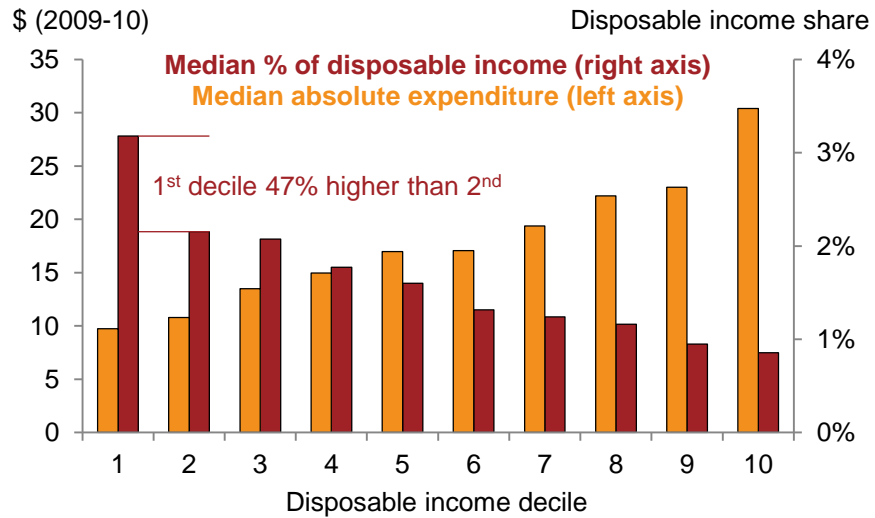
In the body of this submission, we did not include expenditure on private health insurance. However, with these costs included extremely high out-of-pocket costs (as a share of disposable income) are still very strongly skewed towards those with lower incomes (Figure 17).

We plan to do more detailed analysis of out-of-pocket costs in the future.

²⁴ Australian Bureau of Statistics (2011)

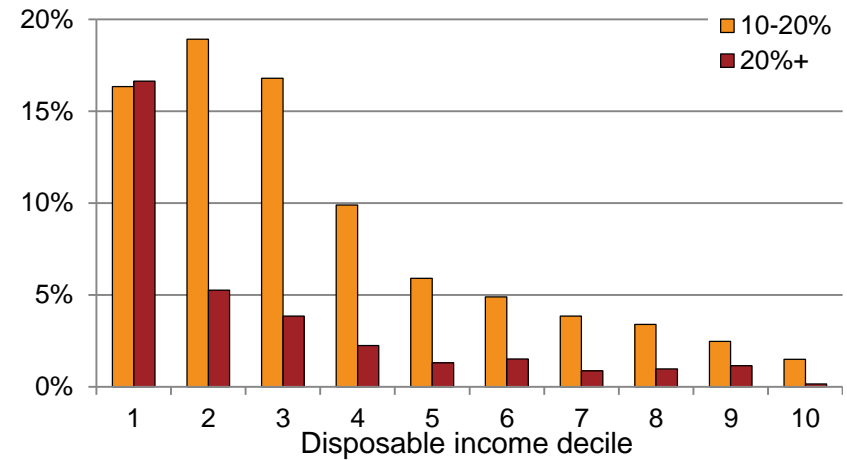
Out-of-pocket costs

Figure 16: Expenditure on all out-of-pockets, by decile 2009-10



Notes: Only includes fees paid (excludes zero values)
Source: Grattan Institute based on Australian Bureau of Statistics (2011)

Figure 17: Proportion of people with high out-of-pocket costs by disposable income decile, 2009-10
Proportion of fee-payers



Notes: Only includes fees paid (excludes zero values). Includes all out-of-pocket categories used in other analysis, with the addition of 'Hospital, medical and dental insurance'
Source: Grattan Institute based on Australian Bureau of Statistics (2011)

6 References

- Australian Bureau of Statistics (2011) *Household Expenditure Survey, Australia*, catalogue number 6530.0,
- Australian Bureau of Statistics (2013) *Patient Experiences in Australia*, catalogue number 4839.0,
- Commission of Audit (2014) *Towards Responsible Government: The Report of the National Commission of Audit*, accessed 9 May 2014, from <http://www.ncoa.gov.au/report/>
- Daley, J., McGannon, C., Savage, J. and Hunter, A. (2014) *Balancing budgets: tough choices we need.*, Grattan Institute from http://grattan.edu.au/static/files/assets/ff6f7fe2/187_budget_pressures_report.pdf
- Department of Health (2014) 'Quarterly Medicare Statistics', accessed 15 April 2014, from <http://www.health.gov.au/internet/main/publishing.nsf/Content/Quarterly-Medicare-Statistics>
- Department of Health and Ageing (2012) *Medicare non-referred (GP) attendances (excluding practice nurse items) Number and percentage of services bulk billed by Federal Electoral Division 2010-11 (year of processing)*, from <http://www.health.gov.au/internet/main/publishing.nsf/Content/71AEFE9116DE64F2CA257641000D4333>
- Duckett, S., Breadon, P. and Farmer, J. (2014b) *Unlocking skills in hospitals: better jobs, more care*, Grattan Institute from <http://grattan.edu.au/static/files/assets/cf2cf3cc/810-unlocking-skills-in-hospitals.pdf>
- Duckett, S., Breadon, P. and Ginnivan, L. (2013b) *Access all areas: new solutions for GP shortages in rural Australia*, Grattan Institute from <http://grattan.edu.au/static/files/assets/31e5ace5/196-Access-All-Areas.pdf>
- Duckett, S. J., Breadon, P., Ginnivan, L. and Venkataraman, P. (2013a) *Australia's bad drug deal: high pharmaceutical prices*, Grattan Institute from http://grattan.edu.au/static/files/assets/5a6efeca/Australias_Bad_Drug_Deal_FINAL.pdf
- Duckett, S. J., Breadon, P., Weidmann, B. and Nicola, I. (2014a) *Controlling costly care: a billion dollar hospital opportunity*, Grattan Institute from <http://grattan.edu.au/static/files/assets/f69df1d6/806-costly-care.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
- 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
- Independent Hospital Pricing Authority (2014) *National Efficient Price Determination 2014-15*, from [http://www.ihpa.gov.au/internet/ihpa/publishing.nsf/Content/CA25794400122452CA257C8400185FBC/\\$File/National%20Efficient%20Price%20Determination%202014-15.pdf](http://www.ihpa.gov.au/internet/ihpa/publishing.nsf/Content/CA25794400122452CA257C8400185FBC/$File/National%20Efficient%20Price%20Determination%202014-15.pdf)
- 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
- 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,
- Lexchin, J. and Grootendorst, P. (2004) 'Effects of prescription drug user fees on drug and health services use and on health status in vulnerable populations: a systematic review of the evidence', *Effects of prescription drug user fees on drug and health services use and on health status in vulnerable populations: a systematic review of the evidence. International Journal of Health Services*, 34(1), p 101-122
- Searles, A., Doran, E., Faunce, T. A. and Henry, D. (2013) 'The affordability of prescription medicines in Australia: are copayments and safety net thresholds too high?', *Australian Health Review*, 37(1), p 32-40
- The Commonwealth Fund (2013) '2013 Commonwealth Fund International Health Policy Survey', accessed 15 April 2014, from <http://www.commonwealthfund.org/Surveys/2013/2013-Commonwealth-Fund-International-Health-Policy-Survey.aspx>