

# Not so universal

# How to reduce out-of-pocket healthcare payments

Stephen Duckett, Anika Stobart, and Linda Lin



#### **Grattan Institute Support**

**Founding members** 



Australian Government







**Endowment Supporters** The Myer Foundation National Australia Bank Susan McKinnon Foundation **Affiliate Partners** Susan McKinnon Foundation Senior Affiliates **Cuffe Family Foundation** Maddocks Medibank Private The Myer Foundation PwC Scanlon Foundation Trawalla Foundation Wesfarmers Westpac **Affiliates** Allens Ashurst Corrs Flagstaff Partners Jemena McKinsey & Company Silver Chain Urbis Woodside

#### Grattan Institute Report No. 2022-03, March 2022

This report was written by Stephen Duckett, Anika Stobart, and Linda Lin. Jeremy Hunt, Oliver Zhang and Edward Meehan provided research assistance.

We would like to thank government and industry participants and academic colleagues for their helpful discussions and comments, especially Peter Brooks, Jennifer Doggett, Louisa Gordon, Paul Komesaroff, Tracey Lea-Laba, Robert Sturrock, Lesley Russell Wolpe, and Tim Woodruff.

The opinions in this report are those of the authors and do not necessarily represent the views of Grattan Institute's founding members, affiliates, individual board members, or reviewers. The authors are responsible for any errors or omissions. Stephen Duckett is Chair of the Board of Eastern Melbourne Primary Health Network (PHN).

Grattan Institute is an independent think tank focused on Australian public policy. Our work is independent, practical, and rigorous. We aim to improve policy by engaging with decision makers and the broader community.

We acknowledge and celebrate the First Nations people on whose traditional lands we meet and work, and whose cultures are among the oldest in human history.

For further information on Grattan's programs, or to join our mailing list, please go to: www.grattan.edu.au. You can make a donation to support future Grattan reports here: www.grattan.edu.au/donate.

This report may be cited as: Duckett, S., Stobart, A., and Lin, L. (2022). *Not so universal: How to reduce out-of-pocket healthcare payments.* Grattan Institute.

ISBN: 978-0-6452739-7-7

All material published or otherwise created by Grattan Institute is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.

### **Overview**

Australia's universal health insurance scheme, Medicare, is designed to make healthcare available to all, no matter how wealthy or poor. And mostly, it achieves this goal. Public hospital care is free, and the vast majority of services outside of hospital are 'bulk-billed' – meaning the patient pays nothing out-of-pocket.

But Medicare is not perfect. Australia still relies more heavily on patients contributing to the cost of their care, compared to similar countries. In 2019-20, Australians spent a total of nearly \$7 billion on out-of-hospital medical services and on medications listed on the Pharmaceutical Benefits Scheme (PBS).

Many Australians can't afford needed care. In 2020-21, nearly half a million Australians missed out on seeing a specialist because of cost, and more than half a million deferred or did not fill a prescription because of cost.

The people who need the most healthcare – the poor and the chronically ill – miss out on care most. This is bad for those individuals, but also bad for taxpayers and the economy. It makes people sicker, widens inequities, and puts further strain on the health system down the track.

This report identifies which out-of-hospital services are putting a financial strain on Australians, and what should be done to bring out-of-pocket payments down, so that fewer Australians miss out on care because of cost.

Firstly, specialist fees are a major cause of high out-of-pocket payments. With public hospital outpatient wait times unacceptably long, many Australians have no alternative but to go to a private specialist. But because fees are unregulated, private specialists often charge way above the Medicare schedule fee. In 2019, half a million Australians spent on average about \$450 on specialist services alone. Governments should take immediate steps to make specialist care more affordable. State governments should expand outpatient services to reduce wait times, and the federal government should fund bulk-billed specialist services in private clinics. We estimate this would cost \$485 million nationally for state governments and \$120 million for the federal government each year.

The federal government should also fund a national secondary consultations scheme – where GPs get advice about patients directly from specialists – to reduce the number of specialist referrals. And where a referral is needed, the scheme should provide a bench-marking tool to GPs to help them refer their patients to lower-charging specialists.

Secondly, pharmaceutical costs are particularly burdensome for people with chronic health conditions who need to take regular medications. The federal government should reduce pharmaceutical costs by extending the length of some prescriptions and lowering the PBS co-payment for non-concession card holders on multiple prescriptions.

Thirdly, the federal government should eliminate out-of-pocket payments for diagnostic services – pathology and radiology – as well as radiotherapy services, by tendering for those services. Patients aren't the real users of these tests, doctors are.

Most of these recommendations would come at low or no cost to the federal government. In total, we recommend that Australian governments invest an additional \$710 million per year. This investment will more than pay for itself, because Australians could save about \$1 billion in out-of-pocket payments per year.

Governments must act now to ensure all Australians can afford their healthcare, when they need it.

Grattan Institute 2022

### **Recommendations**

#### 1. Specialists

- Establish co-located bulk-billing specialist private clinics. A pilot roll-out with 10 Primary Health Networks (PHNs) would cost about \$120 million and save Australians \$60 million to \$70 million in out-of-pocket payments per year.
- Initiate discussions with states to introduce public reporting of waiting times by specialty type for public outpatient services.
- Improve efficiency and expand public hospital specialist outpatient services by setting a maximum wait time, and report on compliance. A 10 per cent expansion nationally would cost an additional \$485 million per year, on top of annual growth and inflation, and provide an additional 1.4 million visits.
- Immediately address any identified specialist workforce shortfalls, including in dermatology, psychiatry, and ophthalmology.
- Establish a national secondary consultation scheme, funded through PHNs, to reduce unnecessary specialist consultations. If the government committed \$100 million, it would save Australians \$85 million in out-of-pocket payments per year.
- Introduce a bench-marking tool to enable GPs to refer patients to low-fee specialists, and if insufficient to drive prices down, remove rebates for specialists who charge more than twice the Medicare schedule fee. This could save Australians about \$200 million per year in out-of-pocket payments for specialists.

#### 2. Pharmaceuticals

• Reduce pharmaceutical out-of-pocket costs by using artificial intelligence software to trigger medication reviews and lower

the (post-review) co-payment for non-concession card holders on multiple drugs (5+). This would probably be close to cost neutral, and potentially reduce inappropriate medications for about 300,000 patients.

• Extend the duration of some prescriptions to reduce the number of times a prescription co-payment needs to be paid.

#### 3. Diagnostic and radiotherapy services

 Abolish out-of-pocket payments for pathology, radiology, and radiotherapy services by switching to a tendering arrangement. This could be close to cost neutral, and would save Australians about \$460 million in out-of-pocket payments per year.

#### 4. Allied health

• Reduce out-of-pocket payments for allied health services by funding PHNs directly to tender for services subsidised under chronic disease and mental health care plans. This could save Australians between \$90 million to \$120 million in out-of-pocket payments per year.

#### 5. Other services

- Expand GP patient enrolment to all people with two or more chronic illnesses. This would cost an estimated \$100 million per year and support an additional 1.7 million eligible people.
- Expand telehealth services, subject to a review of implementation of recent telehealth policy.
- Review the Original Medicare Safety Net and the Extended Medicare Safety Net.

### **Table of contents**

Οv	verview
Re	commendations
1	Out-of-pocket payments create barriers to care 6
2	People with chronic conditions have a higher cost burden 11
3	Out-of-pocket payments can be high for a range of services 18
4	Plugging the gaps
A	How we analysed Medicare and PBS administrative data
В	How we identified people with chronic conditions
С	Inconsistent reporting of outpatient clinic wait times
D	How we estimated the costs and benefits of our recommenda- tions

### **1** Out-of-pocket payments create barriers to care

Australia's universal health insurance scheme, Medicare, was designed to ensure people could get the healthcare they needed no matter how much money they had. It generally works well – but it is not perfect.

In 2019-20, Australians spent \$30 billion out-of-pocket on healthcare.<sup>1</sup> Nearly a quarter of these healthcare out-of-pocket payments – nearly \$7 billion – was spent on out-of-hospital services and Pharmaceutical Benefits Scheme (PBS) listed medications.<sup>2</sup>

Most Australians have healthcare out-of-pockets for governmentsubsidised out-of-hospital services and medications each year, with over a million Australians spending more than \$1,000 each. And these costs are rising, with average service costs increasing on average by 50 per cent in real terms over the past 10 years.

Many Australians cannot afford healthcare they need, especially people with chronic conditions. As a result, they miss out on care, get sicker, and so the healthcare system is being put under further strain.

#### 1.1 Australia relies too much on out-of-pocket payments

Out-of-pocket spending on healthcare in Australia accounts for 17 per cent of Australia's total healthcare spending. This is one of the highest proportions in the OECD (see Figure 1.1).

2. AIHW (ibid, Table A6). In 2019-20 Australians also spent \$2.8 on hospital outof-pocket payments, and \$5.5 billion on dental care. Grattan Institute has made recommendations about those problems in previous reports: Duckett and Moran (2021) and Duckett et al (2019). The remaining out-of-pocket payments include for example another \$9.5 billion on non-PBS listed medications, \$3.2 billion on other services, such as transport, aids, and appliances, \$1.3 billion on non-subsidised allied health services, and \$91 million on community and public health. These are outside the scope of this report. Australians also pay 28 per cent of national pharmaceutical expenditure, higher than, for example, South Korea (27 per cent), Sweden (22 per cent), France (17 per cent), and Germany (15 per cent).<sup>3</sup> As a consequence, Australia ranks poorly compared to other high-income countries on the proportion of people who skip medications because of cost.<sup>4</sup>

Relying on out-of-pocket payments is inequitable and inefficient.<sup>5</sup> Some people argue that out-of-pocket payments discourage unnecessary care,<sup>6</sup> but there is no strong evidence to support this point.<sup>7</sup> Instead, out-of-pocket payments tend to equally reduce both necessary and unnecessary healthcare use, particularly by the poor.<sup>8</sup>

#### 1.2 People are missing out on care because of cost

Concerns about cost sway many people's decisions about the healthcare they get or don't get.<sup>9</sup>

- 3. Kemp et al (2011). This includes expenditure on private prescriptions and under co-payment prescriptions.
- 4. Morgan and Lee (2017).
- 5. Jalali et al (2021); and Bayati et al (2019).
- 6. A 2015 survey found that about 38 per cent of Australians believe patients should pay for most of their healthcare bill so they will be more cost conscious: Robertson et al (2016).
- 7. Some argue that, in the absence of out-of-pocket payments, people would use too much of the 'free service', a concept economists call 'moral hazard'. But the whole concept of moral hazard is conceptually fraught, and ignores the extra costs borne by taxpayers when the co-payment results in necessary care being deferred or missed. See for example, Ekman (2004) and Nyman (2004).
- Newhouse and Health Insurance Experiment Group (1993); and Kiil and Houlberg (2014).
- 9. A 2020 Australian study found that out-of-pocket payments are the key factor for people with diabetes and heart disease in their choice of care: people on

<sup>1.</sup> AIHW (2021).

In 2020-21, an estimated 400,000 Australians missed or delayed seeing a GP at least once during the year because of cost,<sup>10</sup> and about 500,000 missed or delayed needed specialist care because of cost (see Figure 1.2).<sup>11</sup>

This is bad not only for the patient but for the health system and the taxpayer, because missing out on this care may cause more problems – and higher costs through hospital visits – later.

And while Australia's PBS ensures many medications are affordable, in 2020-21 an estimated half a million Australians missed out on or delayed prescribed medication because of cost (see Figure 1.2).<sup>12</sup>

In 2005, when co-payments for prescription medications increased by 21 per cent, the number of medications dispensed dropped substantially, and most of the drop was because disadvantaged people decided not to get medications.<sup>13</sup> Similar trends have been seen overseas: in the US, a 34 per cent increase in the out-of-pocket price for a random set of medications caused a 23 per cent drop in total medication consumption.<sup>14</sup>

While one-off smaller co-payments for healthcare may be affordable, people with unexpected large costs, or people with ongoing healthcare

lower incomes were more likely to consult GPs; people on higher incomes used specialists more: Fiebig et al (2021).

- 10. ABS (2021a).
- 11. ABS (ibid). This number has steadily declined over the past decade, and the COVID crisis may have had an impact on the 2020-21 figure.
- ABS (ibid). These are estimates from a sample survey. This number has steadily declined over the past decade, and the COVID-19 crisis may have had an impact on the 2020-21 figure.
- 13. Hynd et al (2008); Seaman et al (2021).
- 14. Chandra et al (2021) also found that the people who needed the drugs most such as those at risk of heart attack and stroke reduced their consumption, irrespective of their socio-economic status. A meta-analysis of the international literature found an 11 per cent increase in the likelihood of people not adhering to prescribed medication regimes in the face of co-payments: Sinnott et al (2013).

Figure 1.1: Australia relies more heavily than many similar countries on patient out-of-pocket payments for healthcare expenditure Out-of-pocket payments as a percentage of total health spending, OECD countries, 2020 or latest available year



Source: Grattan analysis of OECD (2020).

costs can struggle to pay for care. Figure 1.2 shows that people with chronic conditions are more likely to skip care than those without. About 3.4 per cent and 6.4 per cent of people with chronic health conditions reported missing needed GP and specialist care respectively because of cost, compared to 1.3 per cent and 4.4 per cent of people without chronic conditions. The same pattern exists for skipping prescriptions – 5.4 per cent compared to 2.1 per cent.<sup>15</sup>

#### 1.2.1 The consequences of missed care

When people miss or delay needed care or prescriptions, they can get sicker, which increases costs for the healthcare system down the track. Missed appointments for necessary care, especially for patients with chronic diseases, can lead to people needing hospital treatment for conditions such as severe asthma and diabetes.<sup>16</sup>

High out-of-pocket payments for out-of-hospital care can unnecessarily push people towards hospital care.<sup>17</sup>

The cost of skipped care on the healthcare system is significant. A 2019 Australian study estimated the national cost of non-adherence to medication for people with hypertension, high cholesterol, and depression at \$10.4 billion per year.<sup>18</sup> It found improving patient's adherence to their prescriptions would save the healthcare system and patients \$1.9 billion annually.<sup>19</sup>

**Figure 1.2: Too many Australians are missing care because of cost** Adult Australians who missed a prescription or skipped care in the past 12 months because of cost, 2020-21



Notes: Adult Australians include people aged 15 years and over. The number is estimated based on survey findings. Survey sample size was 28,400. Source: ABS (2021a).

- 17. For example, Fox et al (2019) found that high fees and low supply of out-of-hospital obstetric services encouraged the overuse of in-hospital obstetrician appointments.
- 18. Cutler et al (2019).
- 19. Ibid.

<sup>15.</sup> ABS (2021a).

<sup>16.</sup> Nuti et al (2012) and McGovern et al (2017).

#### 1.3 Prices are going up

Healthcare is taking up an increasing proportion of Australians' household budgets.<sup>20</sup> Out-of-pocket payments for medical services increased by nearly 50 per cent in real terms on average in the past 10 years (see Figure 1.3).<sup>21</sup> Payments for specialty services in particular have increased by more than 50 per cent in real terms in the past 10 years – from about \$50 to \$100 on average.<sup>22</sup>

An Australian study found that spending by patients on subsidised medicines more than tripled between 1991 and 2007, rising from \$19 per person on average to \$62.<sup>23</sup>

#### 1.4 What this report focuses on

Grattan Institute has published reports on reducing out-of-pocket payments for dental services, private hospitals (including specialist medical care in private hospitals), and private health insurance.<sup>24</sup>

This report focuses on reducing financial barriers for those healthcare services not yet covered by Grattan: prescribed medications, and

- 21. Callander and Fox (2018) note that doctors have argued that MBS scheduled fees and rebates have not kept pace with the cost of providing care, or with rising inflation.
- 22. There is some evidence that increased out-of-pocket payments may reduce demand, although it is unclear to what extent this reduces necessary versus unnecessary care. For example, Callander and Fox (ibid) found that out-of-hospital out-of-pocket obstetrics charges increased by more than 1,000 per cent over nearly 20 years, with a correlated decrease in demand.

23. Kemp et al (2011).

24. A 2019 report advocated for a universal dental care scheme: Duckett et al (2019). Others including a 2021 report focused on fixing private healthcare insurance to help make private hospital care more affordable: Duckett and Moran (2021). **Figure 1.3: Out-of-pocket payments for medical services have increased by 50 per cent on average in real terms over the past 10 years** Average out-of-pocket payment per out-of-hospital medical service (when a co-payment is charged) between 2010-11 and 2020-21, adjusted for inflation



Notes: Other MBS services are include other diagnostic and therapeutic procedures. Radiotherapy includes Therapeutic Nuclear Medicine. The BTOS (Broad Type of Service) groups of operations, anaesthetics, and obstetrics are excluded because they are closely associated with hospital care.

Source: Grattan analysis of Department of Health (2021a).

<sup>20.</sup> The ABS Household Expenditure Survey shows that healthcare expenses as a proportion of the household expenditure budget increased by 50 per cent from 1983-84 to 2015-16: ABS (2017). It increased from 3.9 per cent in 1983-84, to 4.6 per cent in 1993-94, to 5.8 per cent in 2015-16.

out-of-hospital services (i.e.health services provided to non-admitted patients) such as specialists, GPs, imaging, and allied health.

This report does not examine services with low total out-of-pocket payments, and/or high bulk-billing rates, such as nurses, pathology, and optometry, because they do not impose a high cost burden (see Figure 1.4). We also do not focus on out-of-hospital non-specialist attendance services for anaesthetics, operations, and obstetrics, because they are closely associated with pre- and/or post-hospital appointments.

A key limitation with analysing patient out-of-pocket payments is that the data only show what people spent – not what people would have spent if they were able to afford all their care.

#### 1.5 How this report is structured

This report draws on unique person-level data provided securely by the Australian Bureau of Statistics (ABS).<sup>25</sup> The report shows who is bearing too much of the healthcare cost burden (Chapter 2), what types of services are driving high out-of-pocket payments (Chapter 3), and how to reduce the financial barriers to healthcare so that far fewer Australians miss out on care because of cost (Chapter 4).

Figure 1.4: Government-subsidised out-of-hospital services have varying rates of bulk-billing and total out-of-pocket payments Bulk-billing rates and millions spent on out-of-hospital services, 2020-21



Notes: These categories are the BTOS (Broad Type of Service) groups reported by the Department of Health. Allied health is termed 'Other allied health' because optometry is listed separately.

Source: Grattan analysis of Department of Health (2021a).

#### 25. See Appendix A.

### 2 People with chronic conditions have a higher cost burden

People with chronic health conditions spend more on healthcare than other Australians, and are more likely to miss care because of cost.

Poorer people and younger people (under 65) – particularly women – struggle to afford the cost of care, and report higher rates of skipping care because of cost. Most people who have chronic health conditions live in lower-income households.

#### 2.1 People with chronic conditions spend much more on care

Nearly 50 per cent of Australians have at least one chronic condition, such as diabetes or asthma.<sup>26</sup> About 6.5 million Australians have one chronic condition, 2.8 million Australians have two chronic conditions, and 2 million Australians have three or more chronic conditions.<sup>27</sup> Their ongoing need for healthcare and/or medications makes them more likely to skip care because of cost.<sup>28</sup>

Australians who have one chronic condition spend at least three times more on out-of-pocket payments on average – services and medications combined – than people with no chronic condition. In 2019, they spent on average about \$200 (see Figure 2.1). Australians who have two chronic conditions spent about \$450 on average – more than double someone with only one chronic condition. And Australians who have three or more chronic conditions spent nearly \$600 on average. With the prevalence of chronic conditions increasing, more and more Australians will be paying higher healthcare costs.<sup>29</sup>

28. See Figure 1.2 and Figure 2.2.

#### Figure 2.1: People with chronic health conditions have much higher outof-pocket payments

Annual out-of-pocket payments per person, if co-payment was charged, 2019 **\$1.400** 



Notes: Out-of-pocket payments include all out-of-hospital health services and spending on prescriptions (above and below co-payment threshold). See Appendix B for methodology on identifying people with chronic conditions. Source: Grattan analysis of ABS (2019).

<sup>26.</sup> ABS (2018). See more in Appendix B.

<sup>27.</sup> Ibid.

<sup>29.</sup> ABS (2018); and Swerissen et al (2016).

Rates of people with chronic health conditions skipping care because of cost are high in Australia compared to other similar countries,<sup>30</sup> but vary based on the type of chronic condition (Figure 2.2). Average out-of-pocket payments also vary significantly depending on the type of chronic condition.<sup>31</sup> Out-of-pocket payments for people with chronic obstructive pulmonary disease and chronic kidney disease average \$2,400-to-\$5,600 per year.<sup>32</sup> Half of cancer patients pay more than \$5,000 per year out-of-pocket for hospital and non-hospital care.<sup>33</sup> And Australians with mental health conditions can face prohibitively high out-of-pocket payments.<sup>34</sup>

People with chronic health conditions are less likely to have all their services bulk-billed – about 30-to-40 per cent of people with chronic conditions have all their services bulk-billed on average per year, compared to nearly 60 per cent of people without chronic conditions.<sup>35</sup>

#### 2.1.1 People with chronic conditions have high medication costs

Nearly 50 per cent of the out-of-pocket payments by people with at least one chronic condition are on prescribed medications, compared to about 20 per cent for people without a chronic condition.<sup>36</sup> People with chronic illness skip pharmaceuticals at 2.5 times the rate of people

- 32. These costs include medical services, medications, community services, and transport.
- 33. Consumer Health Forum survey with a sample size of 1,200 respondents: Consumers Health Forum of Australia (2018).
- Callander et al (2017). About 20 per cent of young people needing mental healthcare skip seeing psychiatrists and psychologists because of cost. ABS (2021a).
- 35. Grattan analysis of ABS (2019).
- 36. Grattan analysis of ABS (2016).

Proportion of people surveyed who said they had missed or delayed a prescription or skipped or delayed needed care in the past 12 months because of cost, 2016-17



Source: ABS (2021a).

<sup>30.</sup> Schoen et al (2013).

<sup>31.</sup> Callander et al (2017), Consumers Health Forum of Australia (2018) and Islam et al (2014). Note that severity of condition may also have an impact on the varying rates of skipping care because of cost.

without a chronic condition (see Figure 1.2 and Figure 2.2).<sup>37</sup> For example, a 2019 Australian survey of asthma patients found that 52.9 per cent of adults and 34.3 per cent of parents of children with asthma missed or decreased their medication doses to make the medication last longer.<sup>38</sup>

Cost of pharmaceuticals can add up for people with chronic conditions. Australians who have one chronic condition spent \$140 on average in 2019 on medications; Australians who have two chronic conditions spent \$300; and Australians who have three or more chronic conditions spent \$400.<sup>39</sup> And the top 10 per cent of spenders with three or more chronic conditions spent \$800 on medications alone.

# 2.1.2 People with chronic conditions are less likely to be able to afford care

Most people with chronic health conditions are of working age (15-64 years).<sup>40</sup> People who develop a chronic condition have a higher chance of leaving the workforce, and therefore have less income as they face high out-of-pocket payments. As a result, these people are at higher risk of falling into poverty.<sup>41</sup> People who lose employment due to chronic illness can also find it harder to get re-employed.<sup>42</sup>

- 39. Grattan analysis of ABS (2019).
- 40. ABS (2018). About 25 per cent are older than 65.
- 41. Callander et al (2019b).
- 42. Burdorf and Schuring (2015); and Stauder (2019).

**Figure 2.3: People on lower incomes spend more on prescriptions** Out-of-pockets as proportion of household expenditure; by income quantile and service type, 2015-16



Note: Prescriptions includes only PBS-listed medications. Source: Grattan analysis of Yusuf and Leeder (2019).

<sup>37.</sup> About 8 per cent of people with chronic conditions reported not filling a prescription due to cost, compared to 3.8 per cent of people without a chronic condition. About 12.2 per cent of people who reported their health as 'fair/poor' said they skipped medications, compared to 5.5 per cent of people who reported 'excellent/good' health. See ABS (2021a).

<sup>38.</sup> Laba et al (2019).

It can become a catch-22: people with long-term health conditions are most likely to suffer deep and persistent disadvantage, and disadvantage often leads to poor health.<sup>43</sup>

About 65 per cent of people who have chronic conditions live in lower-income households.<sup>44</sup> About 52 per cent of people in the lowest socio-economic group have at least one chronic condition, and 13 per cent have three or more, compared to 42 per cent and 6 per cent respectively of people in the highest socio-economic group.<sup>45</sup>

Each additional chronic condition increases by 46 per cent a person's risk of facing severe financial difficulty.<sup>46</sup>

#### 2.2 Poorer people struggle to afford healthcare

People in the lowest socio-economic group are more likely to skip prescribed medications and specialist appointments due to cost (5.9 per cent and 6.7 per cent of the time respectively) compared to people in the highest socio-economic group (3.7 per cent and 5.3 per cent).<sup>47</sup> But rates of skipping GPs due to cost do not vary depending on socio-economic status, possibly because of higher bulk-billing rates.<sup>48</sup>

- 45. ABS (2018, Table 18).
- 46. McRae et al (2013), based on a survey of 4,600 older Australians.
- 47. ABS (2021a). Research shows that higher-income earners, people with a higher level of education, and people with private health insurance, use private specialist services more, and have a higher number of visits after their initial consultation: Pulok et al (2020).
- 48. ABS (2021a). Bulk-billing incentives for GPs for patients with a concession card would also probably be a factor. Pulok et al (2020) found equal access to GPs across the income spectrum.

Households with lower incomes tend to spend a higher proportion of their income on healthcare, especially prescriptions (see Figure 2.3).<sup>49</sup> On average, households in the lowest income quintile spend about 6.4 per cent of their household expenditure on medical and health expenses. By contrast, households in the highest income quintile spend about 5.5 per cent.<sup>50</sup>

High out-of-pocket payments in low-income households can drive some people into poverty. It requires people to dig into savings.<sup>51</sup> Health costs can be sudden and unexpected, causing a financial shock to a household budget.<sup>52</sup> It is estimated that in 2014, out-of-pocket payments drove an extra 250,000 Australians into income poverty.<sup>53</sup>

Bulk-billing rates are higher for Australians living in lower socioeconomic areas. Nearly 70 per cent of people living in the lowest socio-economic areas have all their healthcare services bulk-billed in a year, compared to 33 per cent of people living in the highest socio-economic areas.<sup>54</sup> People in lower socio-economic groups also spend less out-of-pocket on average compared to those in higher

49. Yusuf and Leeder (2019).

- 52. Chen et al (2021).
- 53. This is based on a survey that looked at Australian household expenditure on healthcare between 2006 and 2014: Callander et al (2019b). Out-of-pocket payments covered those paid to health practitioners and for medications and private health insurance premiums.
- 54. Grattan analysis of ABS (2016). This measure uses the Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD). Note that bulk-bill rates may also be higher for people in lower SES-areas due to a lower rate of service use.

<sup>43.</sup> McLachlan et al (2013).

<sup>44.</sup> Grattan analysis of ABS (2016). Lower-income defined as the first-to-fourth quantile of the income spectrum out of 10 quantiles. McRae et al (2013) also found that older people with multiple chronic conditions tend to be on lower incomes.

<sup>50.</sup> Ibid.

<sup>51.</sup> A 2016 survey of 16,000 women diagnosed with breast cancer found that most households (62 per cent) meet the out-of-pocket payments with savings, 21 per cent through income protection, 11 per cent through borrowing from family or friends, and 7 per cent through superannuation: Deloitte Access Economics (2016).

socio-economic groups.<sup>55</sup> Evidence suggests that some doctors also adjust their fees depending on their patient's income status.<sup>56</sup>

#### 2.3 Women spend more on healthcare

Women carry a high healthcare cost burden. Across most of the income spectrum, women spend more out-of-pocket than men.<sup>57</sup> In particular, younger women are spending more than men their age.<sup>58</sup>

This is probably due to a number of factors, including maternal healthcare costs,<sup>59</sup> and higher rates of chronic conditions. About 55 per cent of people with two chronic conditions are women, and 60 per cent of people with three or more chronic conditions are women.<sup>60</sup>

Women are also far more likely than men to skip care because of cost – at nearly double the rate for GPs, specialists, and prescriptions (see Figure 2.4). For example, nearly 8 per cent of women skip specialist care because of cost, compared to 4 per cent of men.<sup>61</sup>

#### 2.4 Younger people find it more difficult to afford healthcare

Younger Australians have high rates of skipping needed care because of cost (see Figure 2.4).<sup>62</sup> This is despite older people generally having

- 56. Johar et al (2017) found that specialist physicians lower their fees by 19 per cent for poorer patients for an initial consultation, and that specialists use age, concession card status, and private health insurance status to determine a person's income status.
- 57. Grattan analysis of ABS (2016).
- 58. Men and women over 60 years have similar healthcare out-of-pocket payments. More women are concession card holders: Grattan analysis of ABS (ibid).
- 59. Fox et al (2019).
- 60. ABS (2018, Table 18.1).
- 61. ABS (2021a). Women also have higher rates of skipping mental health services because of cost compared to men.
- This trend also applies to rates of skipping mental health services because of cost: ABS (ibid).

Figure 2.4: Younger people, particularly women, are much more likely to skip care because of cost

Proportion of people who needed care who said they had missed or delayed a prescription or skipped or delayed services because of cost, 2020-21



Source: Grattan analysis of ABS (2021a).

<sup>55.</sup> Grattan analysis of ABS (2016).

higher healthcare needs, and spending more on healthcare.<sup>63</sup> Nearly a quarter of Australians aged 65 and older have out-of-pocket payments of more than \$500 in a year, compared to 10 per cent of Australians younger than 65.<sup>64</sup>

Nearly half of eligible concession card holders are older than 60 -which means their out-of-pocket payments are lower (see Table 2.1).<sup>65</sup> But this does not fully account for why younger people have higher rates of skipping care because of cost. The fact that younger people tend to have lower wealth and/or savings is likely to be another factor.<sup>66</sup>

# 2.5 People living in regional and remote areas are no more disadvantaged

People in regional and remote areas generally miss care because of cost at similar rates to people in major cities.<sup>67</sup> But people in major cities are even more likely to skip or delay specialist care because of cost (6.4 per cent compared to 4.6 per cent).

Bulk-billing rates are similar across geographic locations.<sup>68</sup> But specialist bulk-billing rates tend to be higher in rural and remote areas

- 63. Yusuf and Leeder (2013). Younger people have similar rates of one chronic health condition compared to older people, but older people tend to have higher rates of multiple chronic conditions: ABS (2018, Table 18.3).
- 64. Grattan analysis of ABS (2016).
- 65. Research also shows that holding a concession card ensures equity of access to healthcare services: Pulok et al (2020).
- 66. Note that our analysis found that annual Medicare out-of-pocket payments were similar across the income spectrum for younger people, with poorer younger people therefore having to spend a higher proportion of their income on healthcare.
- 67. ABS (2021a). People in regional and remote areas had slightly higher rates of missing GPs and specialists because of non-cost reasons compared to people in major cities: 23 per cent compared to 20 per cent for GPs; and 15 per cent compared to 13 per cent for specialists.
- 68. High bulk-billing rates in regional and remote areas may be due to GP bulk-bill incentives in regional and remote areas: Department of Health (2022a). A May

Table 2.1: Concession card holders by age group, 2016

Age group	Estimated number of concessioners	Proportion of age group	Average annual OOP with / without concession	
Up to 20 years	250,000	4%	\$25 / \$25	
20-40 years	1.9 million	27%	\$50 / \$26	
40-60 years	1.7 million	26%	\$100 / \$121	
60-80 years	2.4 million	57%	\$238 / \$306	
80 years and older	750,000	74%	\$300 / \$350	

Notes: OOP = out-of-pocket payment for healthcare, including Medicare-subsidised services and PBS-listed medications. Note this is based on MADIP estimates of concession card holders and population statistics, which may not exactly reflect the real population. See more in Appendix A..

Source: Grattan analysis of ABS (2016).

on average. Nevertheless, there is significant variation across the country, with some lower income regional and rural areas also having lower specialist bulk-bill rates.<sup>69</sup>

People in regional and rural areas pay less out-of-pocket on Medicare subsidised services, on average, than people in major cities. In 2019, people in regional and remote areas spent nearly 50 per cent less than people in major cities.<sup>70</sup> This may be due to a combination of lower average service use and higher bulk-billing in regional areas.<sup>71</sup>

<sup>2021</sup> Federal Government commitment to increase the bulk-billing rebates for rural and remote doctors could help increase these rates even further: Hunt (2021a).

<sup>69.</sup> Grattan analysis of ABS (2019).

<sup>70.</sup> Grattan analysis of ABS (ibid).

<sup>71.</sup> See N. Bates et al (2020) and Department of Health (2022a).

### **3** Out-of-pocket payments can be high for a range of services

Specialist costs are particularly high. It is difficult to get specialist care free of charge, with long waiting times in the public system, and low bulk-billing rates in the private system. Private specialists also tend to charge a lot for services, with many initial consultations charged at more than twice the schedule fee.

Other healthcare services, such as GPs, diagnostic imaging, and allied health, also make up a large proportion of people's out-of-pocket payments (see Figure 3.1). And while medication costs are generally low per person, they are paid by 17 million Australians each year, and can be high for people who need multiple prescriptions.

#### 3.1 There is no limit on what doctors can charge for a service

Medicare subsidises the cost of providing healthcare services. It sets a schedule fee for each service – defined by the government as a fair fee. The government, through Medicare, then rebates patients either fully or partially for that schedule fee.<sup>72</sup>

But it is entirely up to healthcare providers whether they provide the service at the amount of the rebate (i.e. bulk-billed). Nearly 90 per cent of out-of-hospital Medicare services are bulk-billed (see Figure 1.4), and indeed, in 2019, 11.5 million Australians – 50 per cent of people who used medical services – had all their services bulk-billed (see Table 3.1).

### Figure 3.1: There is huge variation in what people pay for Medicare services each year

Total annual out-of-pocket payments per person per service type, if payment required, 2019



Notes: 'N' is the number of people who spent money on that service type. Service types not shown had far fewer services or far fewer people paying out-of-pocket. See Appendix A for methodology.

Source: Grattan analysis of ABS (2019).

<sup>72.</sup> For most GP services, the Medicare benefit is 100 per cent of the schedule fee. For out-of-hospital services provided by specialists, the rebate is 85 per cent of the schedule fee with a 'greatest permissible gap' between the rebate for an item and the schedule fee capped at \$87.90 for more costly services (2021 levels). Where a Medicare item with multiple components is provided, and some components are provided in the hospital and the remainder outside the hospital (e.g.aftercare), a 75 per cent benefit level applies.

However, if a doctor decides to charge above the Medicare rebate, patients pay the difference between the amount charged and the rebate. There is no limit on what doctors can charge. And out-of-hospital medical services cannot be covered by private health insurance.<sup>73</sup> This means some patients have to make extremely high out-of-pocket payments.

# 3.2 Patients face high out-of-pocket costs if they need to see a specialist

The second biggest contributor to total subsidised out-of-hospital out-of-pocket payments (after prescribed medications) is specialist care, which makes up nearly a quarter of total out-of-pocket payments for people living in low-income households, or for people with chronic conditions.<sup>74</sup>

Nearly 40 per cent of adult Australians – and 54 per cent of people with a chronic illness – see a specialist each year.<sup>75</sup> It is often difficult to get timely or affordable care. People can wait for about a year for a routine first outpatient appointment with a specialist (see Figure 3.2).<sup>76</sup>

Service type	Number of people who used service	Number of people for whom all services were bulk-billed	Proportion of people who had all services bulk-billed
Pathology	14.4 million	14.2 million	99%
Imaging	9.8 million	7.7 million	78%
Radiotherapy	80,000	60,000	79%
GP	22 million	14.7 million	67%
Allied health	3.5 million	2.1 million	60%
Specialist	8.1 million	2.6 million	32%
Total Medicare	23 million	11.5 million	50%

Source: Grattan analysis of ABS (2019). See Appendix A.

# 3.2.1 Patients have only limited options to receive specialist care free of charge

When a patient is referred to a medical specialist they are faced with two systems: public hospital outpatient clinics, or private specialists. Neither system works well.

Public hospital specialist outpatient clinics often have very long waiting times (see Figure 3.2). Such clinics are not available in all locations, and not all specialties are covered in every hospital. Governments have a target wait time of no more than 30 days for urgent appointments. Most specialties currently do not meet the target. Governments aim to ensure that patients with routine first appointments are seen within 365 days of referral. Many specialties can't manage even this. For

<sup>73.</sup> Private health insurance can only cover private hospital care and non-Medicare subsidised services such as dental, and allied health.

<sup>74.</sup> Grattan analysis of ABS (2016). Note that low income means people in the bottom four household income quantiles (out of 10). Specialist costs make up a lower proportion of total out-of-pockets for people in high income households and for people without chronic conditions.

<sup>75.</sup> ABS (2021a).

<sup>76.</sup> Reported as the 90th percentile wait time for outpatient clinics in Victoria from April to June 2021. Victorian Agency for Health Information (2021).

example, the 90th percentile rheumatology wait-time is nearly 600 days in the two states (Victoria and Queensland) which publish this data (see Figure 3.2).

In 2020-21, about 22 per cent of Australians who needed to or saw a specialist felt they waited longer than acceptable for a specialist appointment (compared to 17 per cent for GPs).<sup>77</sup> People with chronic health conditions are even more likely to report waiting longer than they felt acceptable.<sup>78</sup> Long wait times for public outpatient appointments probably contribute to people suffering worse health problems down the track.

Seeing a private specialist is effectively restricted to people who can afford the out-of-pocket payment. Bulk-billing rates by private specialists are the lowest out of any Medicare service type – 46 per cent, compared to nearly 90 per cent for GPs.

## 3.2.2 Many specialists charge more than double the schedule fee

Private specialists have slowly been increasing their bulk-billing rates – the average rate increased 11 percentage points over the past 10 years. But average fees charged have increased at the same time.<sup>79</sup> This suggests specialists may be recouping the costs of bulk-billing by charging other patients more, or charging more for specific services.<sup>80</sup> This might be because the rebate is too low, but may also reflect weak competition between providers given under-supply of specialists and

- 79. Department of Health (2021a).
- 80. Scott (2021).

#### Figure 3.2: Many specialties have wait times of hundreds of days for public outpatient services

Wait time in days (90th percentile) by medical specialty for initial routine appointments



Notes: The 90th percentile wait time is the time within which 90 per cent of patients attended their routine first appointment. The data are for July to September 2021 for Queensland, and April to June 2021 for Victoria due to different reporting time periods in each state. A routine first appointment refers to appointments where it is clinically recommended that the patient is seen by the specialist within 365 days of the referral. Sources: Grattan analysis of Queensland Health (2021), and Victorian Agency for Health Information (2021).

<sup>77.</sup> ABS (2021a). This survey does not differentiate between private and public.

 <sup>23.3</sup> per cent, compared to 16.9 per cent for people without chronic conditions: ABS (ibid).

**Figure 3.3: Many specialties have high average out-of-pocket payments** Median out-of-pocket payment per person by out-of-hospital specialist service type, if payment required, 2019



Note: These specialties had the highest total out-of-pocket payments in 2019. Source: Grattan analysis of ABS (2019). Figure 3.4: Many specialists charge patients much more than the Medicare schedule fee

The proportion of initial consultations that were charged at different levels of the schedule fee, 2019



Note: Medicare item 104 was used for medical specialists, 110 for consultant physician, and 296 for psychiatry. Bulk-billed rebate was 85 per cent of the schedule fee. The schedule fees quoted are for 2022; 2019 fees were slightly lower.

Source: Grattan analysis of ABS (ibid).

Medical specialist, schedule fee: \$90

lack of information on fees available to patients when choosing their provider.<sup>81</sup>

Many specialist services are charged at more than double the schedule fee (see Figure 3.4). For example, between 30 per cent to 70 per cent of initial appointments with a dermatologist, urologist, obstetrician, or ophthalmologist are more than double the \$90 schedule fee. Consultant physicians, who have a higher schedule fee for an initial appointment, also have high rates of charging at more than double the schedule fee.

While high-charging specialists are not the majority, high out-of-pocket payments can put patients off seeking needed care. And there is no evidence that those specialists who charge higher fees provide better care.<sup>82</sup>

#### 3.2.3 Some specialty types are particularly expensive

Some specialists are more expensive than others – for no apparent reason. In 2019, Australians spent \$150 on average on specialists, with the 90th percentile spending nearly \$450 (see Figure 3.1). Of the most commonly used specialties, psychiatry, neurosurgery, neurology, paediatrics, and dermatology carry the highest annual out-of-pocket payment (see Figure 3.3).

Psychiatry, in particular, carries high cumulative out-of-pocket payments, likely because it requires ongoing appointments (see Figure 3.3). About 25,000 Australians (the top 10th spending percentile) are paying on average \$1,300 each year on psychiatric appointments alone, and up to \$3,000, on average, on all their health expenses.<sup>83</sup> Given this expense, about 18 per cent of adult Australians needing to see a psychiatrist report missing the service due to cost.<sup>84</sup>

#### 3.3 Pharmaceutical costs can quickly become a burden

Australia has a world-renowned PBS that helps keep down the cost of medications. The PBS subsidises medications by setting a cap (known as the co-payment threshold) on how much Australians have to pay per script, and then the government pays the rest. If a medication costs less than the cap, no subsidy is needed. But if the cost is higher than the cap, the patient pays only up to the cap. The cap for 2022 is set at \$42.50 for people without a concession card, and \$6.80 for concession card holders. In 2020-21, patient out-of-pocket payments for above-cap scripts amounted to \$1.5 billion,<sup>85</sup> and payments for below-cap scripts amounted to another \$1.4 billion.<sup>86</sup>

#### **3.3.1 Prescription costs can be high**

About 66 per cent of Australians have at least one prescription each year.<sup>87</sup> Of the 17 million Australians who had a prescription in 2019, the average spender paid about \$80, and the top 10 per cent spent \$400 on average (see Figure 3.1).<sup>88</sup>

While prescription costs are not very high on their own, they do become a financial burden for some people – particularly for people with chronic health conditions – who need to take regular medications.

- 86. Department of Health (2021c).
- 87. ABS (2021a).
- This includes both above and below co-payment scripts. See Appendix A for methodology.

<sup>81.</sup> Note that specialists are in five of the top 10 highest-earning occupations in Australia (according to their highest-average taxable annual income). This includes surgeons, anaesthetists, internal medicine specialists, psychiatrists, and other medical practitioners: Hutchens (2021).

<sup>82.</sup> In fact, it could be the opposite. US research shows an inverse relationship between surgeon fees and quality care: Whaley (2018).

<sup>83.</sup> Grattan analysis of ABS (2019). Another 2,500 Australians (99th percentile) are spending more than \$2,000 on psychiatry services each year.

<sup>84.</sup> ABS (2021a).

<sup>85.</sup> Department of Health (2021b).

#### 3.3.2 The PBS Safety Net is not doing enough

The PBS Safety Net provides a cap on what Australians can spend in total on prescriptions each year (see Box 1). The cap is lower for people with a concession card. About 90 per cent of PBS subsidised prescriptions are for people with a concession card.<sup>89</sup>

But nearly half a million Australians are still skipping prescriptions because of cost, and many of those people are on lower incomes. This suggests the Safety Net is not doing enough.<sup>90</sup>

There are about 450,000 non-concession card holders who live in low-income households and spend above the concession card annual safety net threshold each year.<sup>91</sup> These people would probably struggle to afford \$1,500 – the annual safety net threshold – on prescriptions each year.

A 2013 study that modelled out-of-pocket costs for people with chronic conditions found that low-income working households not covered by concession cards would have to pay up to 26 per cent of their discretionary income to reach the safety net threshold.<sup>92</sup>

91. Grattan analysis of ABS (2016). Low-income was defined as a person living in a household that has an income of less than \$70,000 per year (i.e.in the first to fourth income quantiles, out of 10 quantiles). The concession card threshold was

#### Box 1: How the Pharmaceutical Benefits Scheme (PBS) Safety Net works

The PBS Safety Net thresholds are the maximum amount a person can pay in a year on their prescribed medications. If they reach their threshold, further medication costs are either waived or reduced.

The thresholds vary depending on whether a person has a concession card or not. The current threshold for people without a concession card is **\$1542.10**. Once an individual or a family reaches the threshold, the co-payment drops from \$42.50 to \$6.80 per prescribed medication for the rest of the calendar year.<sup>a</sup>

The current threshold for people with a concession card is **\$326.40**. After a concession-card holder reaches that threshold, they pay no co-payment for the rest of the calendar year. People are generally eligible for a concession card if they receive government benefits. Cards include the Commonwealth Seniors Health Card, the Health Care Card, and the Pensioners Concession Card.

Brand premiums, therapeutic group premiums, and special patient contributions do not count towards the PBS Safety Net thresholds.

a. As at 2022.

<sup>89. 194</sup> million prescriptions in 2020-21 were for concession card holders, and 18 million for non-concession card holders. A further 94 million PBS-listed prescriptions did not receive a government subsidy, as they were under the co-payment cap: Department of Health (2021b).

<sup>90.</sup> ABS (2021a). Note that the Closing the Gap PBS co-payment measure has successfully lowered medication costs for Indigenous Australians who have chronic conditions or who are in lower-socio-economic groups: Trivedi and Kelaher (2020). Indigenous Australians also have much lower out-of-pocket payments for healthcare compared to non-Indigenous Australians. Higher bulk-billing rates and lower average service use likely contribute to this. See for example: Callander et al (2019a).

#### 3.4 GP services are mostly free or low-cost

About 87 per cent of Australians see a GP at least once a year. Cost barriers are fairly low, with 89 per cent of services bulk-billed, and two thirds of people getting their services fully bulk-billed.

If a person is charged, the average cost per visit is \$40. Among the 7.3 million Australians who were charged in 2019, the average total cost of all appointments over the year was \$80 per person.<sup>93</sup>

This cost does not present a major financial barrier for people needing care – only a small proportion of people (2.4 per cent) report missing out on needed GP care because of cost.<sup>94</sup> And this does not differ by socio-economic status or income (see Figure 2.3).<sup>95</sup>

#### 3.5 Out-of-pocket payments for diagnostic imaging can be high

Diagnostic imaging, also known as radiology, is the fourth-highest source of out-of-hospital out-of-pocket payments. About \$400 million was spent on diagnostic services in 2020-21. Nearly 70 per cent of out-of-pocket spending is on ultrasounds.<sup>96</sup>

- 92. Kemp et al (2013).
- 93. Grattan analysis of ABS (2019).
- 94. ABS (2021a). However, this still translates to around 400,000 people missing out on GP care each year see **??**.
- 95. The 2020-21 ABS Patient Experiences Survey also found that there was little difference across socio-economic groups in those reporting that they felt their GP spent enough time with them during a visit.
- In 2019, \$270 million was spent on ultrasounds. About 27 per cent of out-of-pocket payments for ultrasounds were for obstetric and gynaecological ultrasounds. Grattan analysis of ABS (2019).

Medical practitioners are increasingly ordering diagnostic services. It is unclear to what extent this increase is justified as a consequence of new technologies, or whether it is over-utilisation.<sup>97</sup>

People with chronic health conditions are more likely to need an imaging test (49.6 per cent of people with chronic conditions had an imaging test in 2020-21, compared to 24.8 per cent of people without). The cost of radiology is a barrier for up to 6 per cent of people with a chronic condition.<sup>98</sup>

Bulk-billing rates for imaging are high – 87 per cent of services are bulk-billed. In 2019, 7.7 million Australians – about 80 per cent of people who had imaging – had all their imaging services bulk-billed.

But when these services are not bulk-billed, they can be expensive. About 2 million Australians paid out-of-pocket for diagnostic imaging in 2019, and these people spent nearly \$150 on average – and nearly \$400 on average for people in the top 10 per cent of spenders.Grattan analysis of ABS (2019). Many of these individuals also paid GP and/or specialist out-of-pocket payments to get a referral for imaging in the first place.

#### 3.6 Radiotherapy costs are extremely high for some people

Cancer patients face high costs after diagnosis. Nearly 18,000 Australians paid out-of-pocket for radiotherapy services to treat cancer in 2019. They spent about \$2,000 on average over the year, with the top 10 per cent of spenders paying \$4,000 on average.<sup>99</sup> These costs for cancer treatment would be prohibitive for many people. For example, ABS research found that one in eight Australians would be unable to raise \$2,000 within a week for an emergency.<sup>100</sup>

99. Grattan analysis of ABS (2019).

set at \$450 to be conservative, given patient prescription expenditure was reported in ranges. See more in Appendix A.

<sup>97.</sup> Russell and Doggett (2015).

<sup>98.</sup> ABS (2021a).

<sup>100.</sup> ABS (2014).

#### 3.7 Subsidised allied healthcare is expensive

Patients paid almost \$400 million in out-of-pocket payments for services provided in accordance with chronic disease management plans and mental healthcare plans in 2020-21.<sup>101</sup> On average, bulk-billing rates for allied health services are low – about 56 per cent, compared to GP bulk-billing rates of almost 90 per cent. In fact, this rate has dropped by 20 per cent over the past 10 years, whereas bulk-billing rates in all other services have increased.

The average out-of-pocket payment for an allied health consultation is 55, significantly more than the average out-of-pocket payment for a GP visit (41).<sup>102</sup>

Psychology services subsidised by mental healthcare plans are particularly expensive. Only about 40 per cent of people were bulk-billed for all their psychology appointments in 2019. Those who paid for services spent \$223 on average in 2019, with the top 10 per cent of spenders spending on average \$650.<sup>103</sup> With such high costs, it is no surprise that there is a high rate of people missing mental healthcare because of cost (Figure 2.2). About 17 per cent of adult Australians needing to see a psychologist report missing out on the service due to cost.<sup>104</sup>

Allied health services provided under a chronic disease management plan vary in expense. People spent on average \$57 per person in 2019. This lower cost may be because they are only eligible for five services a year, rather than 10 for mental health.<sup>105</sup>

102. Ibid.

If a patient exceeds the number of subsidised visits they are entitled to under their management plan, or does not have a referral in the first place, Medicare does not subsidise the service. In 2019-20, patients spent \$1.3 billion on these non-subsidised allied healthcare services.<sup>106</sup> Some treatments in this category may not be medically necessary, so it is appropriate that patients bear these costs themselves. And people with private health cover would be subsidised for these services.

However, some patients, such as those with multiple chronic conditions, may require more than the standard five permitted allied health visits. These patients face a significant cost burden in covering the full service fee without a rebate.

106. AIHW (2021).

<sup>101.</sup> Department of Health (2021a). Chronic disease management plans give people five subsidised services per year. Mental healthcare plans provide 20 subsidised services per year (in batches of six sessions).

<sup>103.</sup> Grattan analysis of ABS (2019).

<sup>104.</sup> ABS (2021a).

<sup>105.</sup> The number of mental health services has now been expanded to 20 sessions per year.

### 4 Plugging the gaps

Medicare was designed to eliminate financial barriers to healthcare, and for most Australians, it does. But governments can do much more to ensure that healthcare is affordable for all and avoid unnecessary costs down the line (see summary of recommendations in Table 4.1).

To address specialist out-of-pocket payments, state governments should expand outpatient services to reduce wait times for specialist care, and the federal government should fund bulk-billed specialist services in private clinics. We estimate this would cost \$485 million nationally for state governments and \$120 million for the federal government each year.

The federal government should also fund a national secondary consultations scheme to reduce the number of unnecessary specialist appointments. It should provide a bench-marking tool to GPs to assist them in referring their patients to lower-charging specialists. And if that doesn't work, it should remove rebates from specialists who charge too much.

To address pharmaceutical out-of-pocket payments, the federal government should extend the duration of some prescriptions, and minimise low-value prescribing.

The federal government should abolish out-of-pocket payments for all pathology, diagnostic imaging, and radiotherapy services, by switching to commercial tenders for these services.

The federal government should also reduce out-of-pocket payments for allied healthcare by tendering these services through Primary Health Networks (PHNs). And it should expand patient enrolment to a GP practice for people with multiple chronic conditions, costing an additional \$100 million per year.

#### 4.1 Reform criteria

To make healthcare more affordable, our recommendations aim to:

- **Be targeted**. Policies should target financial barriers faced by people with chronic illnesses and people on lower incomes, and bring down costs of expensive services.
- **Be efficient**. Federal Government spending on health is projected to grow as a share of GDP from 4.1 per cent in 2018-19 to 6.2 per cent in 2060-61, and spending on Medicare is projected to increase by 70 per cent over the next 10 years.<sup>107</sup> Reforms should not simply shift the out-of-pocket burden from patients onto government, but, where possible, also reduce unnecessary and low-value care.
- **Improve quality**. Reforms should introduce better practice models that are attuned to patients' needs. Patients with chronic illnesses need continuity of care, supported by multi-disciplinary teams, and shorter wait-times.
- Be effective. The government should monitor the out-of-pocket payments made by Australians – by location and patient characteristics – each year, and evaluate reforms as they are phased in. Government should augment its current provider-centric approach to reporting – focusing on the proportion of all services bulk-billed – to add a patient-centric approach such as what proportion of patients had all their services of a particular type bulk-billed.

<sup>107.</sup> Treasury (2021). The ageing population, rising incomes, and technological advances, such as genomics, are driving these increases. The cost and prevalence of chronic conditions is also a factor – with Medicare funding for chronic disease specific items increasing by 25 per cent each year: Department of Health (2019a, Figure 4).

Table 4.1: Summary of recommendations, costs, and benefits

Service type	Recommendation	Government cost (per year)	Estimated patient benefits (per year)
Specialist services	Improve efficiency and expand specialist public outpatient services	\$485 million (state) for a 10 per cent expansion	Provide an additional 1.4 million specialist visits, and reduce wait times
	Introduce public reporting of waiting times by specialty type for public outpatient services	Minimal cost	Improved transparency of wait-times
	Establish co-located bulk-billing specialist clinics	\$120 million (federal) for pilot roll-out in 10 PHNs	Save about \$60 million to \$70 million in out-of- pocket payments
	Address specialist workforce shortfalls	Minimal cost	Reduce specialist wait-times
	Establish a national secondary consultation scheme funded through PHNs	Close to cost neutral	If scheme committed \$100 million, it would save \$85 million in out-of-pocket payments
	Introduce a bench-marking tool for GPs of specialist fees, and, if necessary, remove rebates for specialists charging more than double the MBS fee	Minimal cost	Better patient information and, if rebates removed, could save about \$200 million in out-of-pocket payments for specialists
Prescriptions	Establish software for medication reviews and reduce co- payment for people on multiple drugs	Close to cost neutral	Reduce potentially inappropriate medications for 300,000 patients
	Extend the duration of some prescriptions to reduce the number of times a prescription co-payment needs to be paid	Cost neutral	Reduce out-of-pocket payments for people with chronic health conditions
Diagnostics	Abolish out-of-pocket payments for pathology, radiology, and radiotherapy services by switching to a tendering arrangement	Cost neutral (depending on outcome of the tender process)	Save about \$460 million in out-of-pocket payments
Allied health	Reduce out-of-pocket payments for allied healthcare	Cost neutral	Save between \$90 million to \$120 million in out-of-pocket payments
General	Review the MBS Safety Nets	Minimal cost	Better protections against high costs
General	Expand GP patient enrolment to people with two or more chronic illnesses	\$100 million (federal)	An additional 1.7 million people eligible to get multi-disciplinary care
General	Review and expand telehealth for enrolled patients	Minimal cost	Reduced out-of-pocket payments, including indirect costs (e.g.travel).
Total		\$710 million	Save about \$1 billion in out-of-pockets

Note: See Appendix D for methodology for estimating costs and benefits.

Grattan Institute 2022

In accordance with these criteria, there are some reform options we do not recommend (see Box 2).

#### 4.2 Reduce specialist out-of-pocket payments

The federal and state governments should drive down the out-of-pocket payments people face for specialists by increasing the number of services that are free of charge. The federal government should also bench-mark specialist fees so that GPs can refer patients to lower-charging specialists, and if still needed, it should remove subsidies from specialists who charge too much.

# 4.2.1 Expand and monitor public hospital outpatient services to reduce wait-times

State governments should improve access to their public hospital outpatient clinics, to bring down waiting times to 30 days for urgent appointments and 90 days for routine appointments.<sup>108</sup>

Reducing waiting times will require action on two fronts: improving efficiency of outpatient services, and providing more services.

#### Make outpatient services more efficient

There is scope to improve efficiency of outpatient services to enable more patients to be seen with the same resources.<sup>109</sup> The COVID-19 pandemic has shown how quickly hospitals can shift their model of outpatient care to be primarily based on virtual appointments (telehealth). These are more efficient for patients – involving less travel time – but may also be more efficient for hospitals, including by reducing the number of people who miss appointments.

#### Box 2: What the federal government should not do

The government should **not** increase Medicare rebates to reduce out-of-pocket payments,<sup>a</sup> nor extend private health insurance to cover Medicare-subsidised out-of-hospital services.

While these mechanisms may decrease some patients' expenses, much of the gain would probably be pocketed by providers.<sup>b</sup>

While increasing Medicare rebates for specialists whose clinics are entirely bulk-billed would help encourage increased bulk-billing, it would come with a large upfront cost. And it would not address excessive fees charged by some health professionals.

There may also be a case for extending private cover to specific out-of-hospital services that are closely associated with hospital care, such as obstetrics or pre-surgery appointments.<sup>c</sup> But it would be inequitable, because the more-than-half of Australians who do not have private health cover could end up paying more for out-of-hospital services if providers increase fees in response to increased subsidies.

- a. There is debate about whether the schedule fees adequately reflect the cost of care. In particular, the government rebate has not always been adjusted in line with inflation. But this issue should be addressed separately.
- b. Hall (2013). When the Extended Medicare Safety Net (EMSN; see Box 3) was introduced in 2004, it gave some patients greater subsidies for their services. A 2009 independent review of the EMSN found that provider fees had increased 4.2 per cent per year, and that the EMSN was responsible for 70 per cent of this: Savage and Van Gool (2009). As a result, the government's additional spending on the Safety Net was not matched by a drop in patient out-of-pocket payments. One study estimated that for every dollar spent on the EMSN in 2008, physicians received 43 cents and patients received 57 cents: Savage and Van Gool (ibid).
- c. Private health insurers can already pay for some 'hospital substitute' services. This should continue.

<sup>108.</sup> This should be set as a maximum 90th percentile wait-time.

<sup>109.</sup> Monash Health in Melbourne has produced a good review of strategies to improve management of outpatient services: MonashHealth (2019).

A major role for hospital outpatient services is to address uncertainty in diagnosis – here the specialist sees and assesses the patient and provides advice to the patient's GP about ongoing patient management. The specialist may need to review the patient subsequently, especially if the patient's condition doesn't respond to the advice or the patient's condition becomes unstable.

A critical performance indicator which has been adopted in a number of states is the 'new:review' ratio – how many outpatient appointments are for new patients compared to 'review' patients; patients seen a second, or third time that year? The greater the 'new:review' ratio, the greater the number of new patients who can be seen. States should monitor and publish clinic-specific 'new:review' ratios and encourage higher ratios.<sup>110</sup>

#### Invest in expanding outpatient services

The unmet demand may not be able to be met solely through efficiency strategies. Increased investment in public outpatient services is required.<sup>111</sup>

State governments should start by focusing service expansion on specialist types with the longest wait times, in order to bring appointment waiting times down to 30 days for urgent appointments and 90 days for other initial appointments. We calculate that expanding specialist outpatient services by 10 per cent nationally – on top of inflation and normal annual growth – would cost \$485 million per year (see Appendix D for methodology).<sup>112</sup> We estimate this would provide

112. Note this cost is based on 2019-20 service usage rates.

an additional 1.4 million clinic appointments. The cost of this expansion could be reduced by improving the 'new:review' patient ratio.

An expansion of hospital outpatient services would also allow for expansion of specialist trainee positions. Providing more opportunities to train new specialists would also help to address shortfalls in the number of available specialists. State governments might also consider co-locating expanded outpatient services with general practices, in parallel with our proposal to expand 'bulk-billing specialist clinics' (outlined in Section 4.2.3), and expanding the secondary consultation role of outpatient services (in parallel with our proposal in Section 4.2.5).

# 4.2.2 Introduce public reporting of public specialist waiting times

The federal government should initiate discussions with the states on introducing public reporting of clinical waiting times. There is no national collation of outpatient waiting time data, and there are inconsistencies in data collection among states (see details Appendix C) in terms of:

- reporting frequency;
- inclusion of details such as clinical specialty and referral urgency;
- types of wait-time metrics reported; and
- geographical groupings.

In the absence of consistent national reporting, state governments should standardise their reporting to enable reliable comparisons and coordinated service planning. They should also report the number of referrals made and the number of patients seen (within and outside recommended wait times) in a given period.

<sup>110.</sup> Different hospitals have different mixes of outpatients. States should take these differences into account in setting goals for 'new:review' ratios.

<sup>111.</sup> Freed and Allen (2017) noted that the problem of public waiting times may be more related to the public sector investment in doctors rather than an actual national or regional shortage of a specific speciality.

#### 4.2.3 Establish co-located bulk-billing specialist private clinics

The federal government should subsidise the establishment of new co-located private specialist clinics that do not charge patients out-of-pocket. These 'bulk-billing specialist clinics' should be established within bulk-billing general practices.<sup>113</sup> Co-locating these new services with general practice would strengthen primary care by providing informal learning opportunities for GPs, potentially reducing future referrals.

The government should contract PHNs to manage the program. PHNs should select sites for new clinics in accordance with criteria set by government. GP clinics could be funded under a Health Program Grant,<sup>114</sup> and their performance monitored by the relevant PHN.

In the first instance, clinics could be established in specialties where there is high demand and insufficient supply, such as psychiatry and dermatology (see Section 4.2.4).<sup>115</sup> Clinics should be established in areas where it is difficult to access public hospital outpatient clinics, where rates of bulk-billing for specialty services are low, and where there are low average incomes.<sup>116</sup> The selection process must also involve local healthcare providers, to help ensure that new clinics meet unmet demand rather than duplicate existing services.<sup>117</sup> This process

- 115. The federal government should provide PHNs with data to help them make these choices.
- 116. There is strong support among most health providers for establishing health centres in communities that are medically under-served or have low socio-economic status: Russell and Doggett (2015).
- 117. Russell and Doggett (ibid). Healthcare providers that already bulk-bill should not get any additional rewards.

should also determine the nature of any subsidy required to establish a clinic, and to enable it to have appropriate hours of operation.

To attract the necessary additional workforce, PHNs may need to set salaries at competitive rates – above what they might otherwise get through solely relying on the Medicare bulk-bill fee.<sup>118</sup> Funding of bulk-billing clinics should provide opportunities for specialists in training, perhaps on rotation from local hospitals.

The government should also waive some or all of trainee or specialist HELP debts for graduates who work in a bulk-bill clinic for a specified number of years. This would also help reduce longer-term workforce shortages in some specialties.<sup>119</sup>

The government should start with a pilot roll-out coordinated by 10 PHNs. We estimate the cost would be about \$120 million per year, or on average about \$12 million per PHN. We calculate this could save Australians between \$60 million to \$70 million in out-of-pocket payments per year.<sup>120</sup>

#### 4.2.4 Address identified shortfalls in the specialist workforce

The federal government should immediately address any workforce shortfalls in dermatology, psychiatry, and ophthalmology, as identified by the federal government's National Medical Workforce Strategy 2021-2031 and specialist colleges.<sup>121</sup> The federal government should work

- 120. Based on estimated savings from 2020-21 expenditure.
- 121. The National Medical Workforce Strategy 2021-2031 also identified a growing oversupply of other specialists, such as emergency medicine, intensive care, cardiothoracic surgery, and anaesthesia: Department of Health (2021d, p. 16). The college for dermatology has identified a lack of training places, and the

<sup>113.</sup> This is because people who go to bulk-billing GPs tend to be on lower incomes. New specialist clinics should also be set up in Aboriginal Community-Controlled Health Organisations, and in community health centres with bulk-billing GPs.

<sup>114.</sup> Part IV of the *Health Insurance Act 1973* provides for grants of this kind, which can be seen as analogous to bulk-billing, but with additional subsidies tailored to the specific location.

<sup>118.</sup> Some private specialist bulk-billing occurs in association with public hospitals, which may implicitly cross-subsidise bulk-billed services. See range of assumptions in Appendix D.

<sup>119.</sup> For example, the federal government has committed to a HELP debt reduction for rural doctors and nurse practitioners: Department of Health (2022b).

with state governments and the relevant specialist colleges to expand the number of training places.

Australia's medical specialist workforce has steadily grown over recent years, but the growth has not been uniform across specialties and geographic areas. Specialty types with known shortages are growing slower than the population aged 70 and older, a better measure of demand for health care than simple population growth (see Figure 4.1). There is also maldistribution of specialists geographically, and bottlenecks in training programs for some specialties.<sup>122</sup>

For example, there is expected to be a shortage of 90 full-time equivalent dermatologists by 2030, if current trainee rates remain.<sup>123</sup> To close that gap would require an additional nine trainee dermatologists (FTE) graduating from the training program each year.<sup>124</sup> With only about 20 new trainees nationally per year, this would require a 50 per cent increase in intakes.<sup>125</sup>

## 4.2.5 Use secondary consultations to reduce unnecessary specialist referrals

The federal government should launch a national secondary consultations scheme. Secondary consultations are where specialists provide advice directly to GPs about management of a patient, without seeing the patient. These consultations could be used as a way of avoiding referrals, while still ensuring the patient gets good-quality care.

- 122. Australasian College of Dermatologists (2021).
- 123. In 2020, there were 550 dermatologists working in Australia: Australasian College of Dermatologists (ibid).
- 124. Ibid.
- 125. Department of Health (2017). Note that this does not take account of international medical graduates who could also fill some of the shortfall.

### Figure 4.1: Some specialty workforces are growing slower than the ageing population

Growth in registered specialist numbers and the Australian population, 2014 to 2019



Note: These specialties had the highest total out-of-pocket payments in 2019. Sources: Grattan analysis of ABS (2021b) and Medical Board (2022).

college for psychiatry has identified shortages in the number of clinicians in some specialties (e.g.child psychiatry), and geographical maldistribution.

Under these arrangements, the GP would seek specialist advice from the consultation service, be contacted by the specialist within 24 hours, discuss the patient with the specialist, and get follow-up written advice about treatment options. During these discussions, specialists could also provide diagnostic referrals for services that can only be referred by specialists.

At present, secondary consultations are not remunerated under Medicare. While it is already common for GPs to seek free advice from specialists, this scheme would augment such arrangements to include written advice and referrals. It may also help to reduce any over-servicing.<sup>126</sup>

Specialists would need to be on retainer to provide this service. To ensure the scheme runs as efficiently as possible, not every specialist should be invited to participate.<sup>127</sup> PHNs could be responsible for contracting these services.<sup>128</sup>

This policy would be close to cost neutral, while also wiping out patient out-of-pocket payments for the avoided specialist appointment. Instead of the government subsidising a specialist appointment, it would be subsidising specialist and GP time for a phone call.<sup>129</sup> If the federal government invested \$100 million into the scheme, it would save Australians about \$85 million in out-of-pocket payments.<sup>130</sup>

- 127. There is a benefit in developing a trusted relationship between GPs and the specialists involved, so it might be appropriate to have one of these services in each state, or perhaps in each of the larger states, with the smaller states linked.
- 128. Stephen Duckett is chair of the board of the Eastern Melbourne PHN, which funds a secondary consultation service in psychiatry.
- 129. Government savings would come from the reduced number of patient specialist consultations that are rebated. We expect that about 10 per cent of secondary consultations would result in the patient being referred to a specialist: Job et al (2021).
- 130. Based on estimated savings from 2020-21 expenditure.

# 4.2.6 Establish a bench-marking tool to help GPs to refer patients to lower-cost specialists

The federal government should introduce a bench-marking tool of specialist fees to guide GPs when making referrals.

Currently, there is very little transparency about what out-of-pocket payments a patient can expect to face. Less than half of specialists (47.2 per cent) discuss out-of-pocket payments with their patients,<sup>131</sup> and GPs are not necessarily conscious of price when referring patients to their recommended specialist.<sup>132</sup> Given fees are not regulated, patients can face high costs without warning.

Making pricing information publicly available is not the answer,<sup>133</sup> because few patients engage with healthcare services by informing themselves of prices and shopping around.<sup>134</sup> And there is a risk that cheaper providers would use the public pricing information to increase their fees.

Nevertheless, patients have a right to receive information about the out-of-pocket payments they may face.<sup>135</sup> A price bench-marking tool should be designed for GPs to use when referring patients to specialists. The tool should take account of service type and geography, and it should be linked to quality measures. It should

- 132. Dobrosak and Dugdale (2021).
- 133. For example, recent efforts by private health insurers to disclose prices on their websites for out-of-pocket payments have not proven very effective: Chalmers et al (2019).
- 134. A 2020 international review of literature found that price transparency did not change the behaviour of patients overall: Zhang et al (2020). But it did find that 'disclosure of negotiated prices' prompted supply-side competition, and, in turn, reduced prices for 'shop-able' services, such as for diagnostic imaging and pathology.
- 135. Mehrotra et al (2018).

<sup>126.</sup> See for example: Capurro et al (2022).

<sup>131.</sup> Consumers Health Forum of Australia (2018).

also provide real-time information on wait times for public outpatient services, so that patients can be better informed.

The bench-marking tool should include red flags for high-charging specialists – those with a record of charging significantly above the average rate for that service. Or high-charging specialists could be removed from the tool, so they would be excluded from consideration. This would discourage specialists from charging high fees.

We expect that the bench-marking tool could come at minimal cost, because it would not require additional government expenditure on services beyond the technological infrastructure and a guide for GPs.

#### 4.2.7 Penalise high-charging specialists

If the strategy of providing more information to GPs to guide referrals to lower-charging specialists does not work alone, the federal Department of Health should remove rebates from specialists who charge more than twice the Medicare schedule fee (see Figure 3.4).<sup>136</sup> Together, these policies would encourage high-charging specialists to lower their fees. We estimate this measure could save patients about \$200 million per year in out-of-pocket payments to specialists.<sup>137</sup>

#### 4.3 Reduce pharmaceutical out-of-pocket payments

A key way to reduce out-of-pocket payments for prescriptions is to reduce the number of prescriptions.

#### 4.3.1 Increase maximum dispensed quantities

The total amount a person pays for medications – until they reach the safety net – depends on the number of prescriptions. If a person with

The maximum dispensed quantity needs to take into account risks of supplying too much. For example, an increased maximum would mean a person would come back less frequently to their medical practitioner – GP or specialist – for review.<sup>138</sup>

A proposal to increase the maximum dispensed quantity was considered by the Pharmaceutical Benefits Advisory Committee in 2018.<sup>139</sup> The Committee supported an extension of the maximum dispensed quantity from one months' supply to two months' for a limited range of medications,<sup>140</sup> for people who were clinically stable. The maximum dispensed quantity isn't the minimum quantity so, as the Committee pointed out, this proposal would allow clinicians to exercise greater choice and provide patients both financial and convenience benefits.

The proposal is still relevant and government should again consider an increase to the maximum dispensed quantity for a range of medications.

#### 4.3.2 Reduce 'polypharmacy'

The federal government should introduce an artificial intelligence (AI) software tool that identifies people on multiple medications, and triggers a review of their medications regime. This would not only bring quality and efficiency benefits, but also lower patient out-of-pocket payments.<sup>141</sup>

- 140. Pharmaceuticals Benefits Advisory Committee (2018b).
- 141. Better prescribing can also reduce the cost of patients suffering adverse reactions to drugs as a result of complex drug interactions.

<sup>136.</sup> While charging twice the schedule fee is still unacceptable, it at least puts an upper ceiling on excessive charging.

<sup>137.</sup> Based on estimated savings from 2019 expenditure.

<sup>138.</sup> Returns to see the doctor are also affected by how many repeats of the prescriptions are authorised.

<sup>139.</sup> Pharmaceuticals Benefits Advisory Committee (2018a).

Many people with multiple chronic conditions will have been prescribed multiple medications, sometimes by different medical practitioners. A person under financial pressure may have to decide which prescriptions to fill and which they will put aside. The patient will not know which of their prescriptions are the most important.

The federal government should do more to reduce 'polypharmacy' – where a patient is prescribed more than five medications.<sup>142</sup> At present, patients can receive a medication management review – where their medications regime is reviewed by a pharmacist and then discussed with a GP – but these reviews do not always happen.<sup>143</sup>

Al should be used to identify the risk to patients of polypharmacy.<sup>144</sup> The Al could assess the risks of all possible drug interactions, given the specific circumstances of the patient.<sup>145</sup>

The software tool should be used to:

- Identify all patients who are prescribed more than five medications in a year<sup>146</sup>
- Identify where there are patient risks associated with multiple medications<sup>147</sup>

- 143. See for example: Swannell (2021). Note there are two types of medication reviews in Australia domiciliary reviews for people living in the community, and residential reviews for people living in residential aged care.
- 144. Sirois et al (2021).
- 145. Kessler et al (2021); D. W. Bates et al (2021); and Choudhury and Asan (2020).

146. Grattan analysis of 2016 PBS data shows that about 3 million people, have at least five scripts per year, one million of whom are non-concession card holders: Grattan analysis of ABS (2016).

147. There are several ways this could be done, including using the PBS dataset, using MyHealthRecord, or locally within the practice management software for a practice, linking to national algorithms.

- Identify whether the patient is filling all their scripts for their prescribed medications
- Where a risk is flagged, alert the patient's GP (or the last GP who prescribed the medication) about the patient's risk and provide advice on possible alternative prescribing regimes.<sup>148</sup>

GPs should review a patient's medications after an alert, and make changes if necessary.<sup>149</sup> If the review resulted in fewer prescriptions, the patient would have lower out-of-pocket payments.

If, after review, a patient's prescription regimen still required five or more medications for a chronic condition, and the patient was not a concession card holder, they should be deemed to have met the safety net threshold, regardless of their income.<sup>150</sup> They would then be required to pay only the concession card co-payment of \$6.80 per script, rather than \$42.50 per script, for the next 12 months. After this period, the patient could have another medication review to see if they should remain eligible for a further year.

We expect that this software tool would be close to cost neutral for government. Any increases in government expenditure from reducing the co-payment for people on multiple drugs would probably be paid for by efficiency gains from reduced prescribing. We estimate it could reduce inappropriate medication use for about 300,000 patients.

<sup>142.</sup> Page et al (2019).

<sup>148.</sup> The patient should also be advised to contact their GP.

<sup>149.</sup> Al-informed medication reviews could also become part of a patient's chronic disease management plan.

<sup>150.</sup> Access to the Safety Net should also be determined automatically for all Australians, including for families.

# 4.4 Abolish out-of-pocket payments for diagnostic services and radiotherapy

The federal government should introduce a new funding arrangement for diagnostic services and radiotherapy to ensure that these services are provided free of charge to patients.

Diagnostic services differ from other Medicare services, because these services are now frequently provided by large corporations. It is an anomaly that a funding arrangement developed for small professional practices – i.e.Medicare's fee-for-service arrangement – is used to underwrite the income of large, listed companies.<sup>151</sup>

Patients are not the real consumers of these tests and investigations – the real consumers are the doctors who order and use them. There is little point in out-of-pocket payments if they punish the sick, while enabling the industry to use the threat of out-of-pocket payments as a bargaining chip in policy battles.

Similarly, out-of-pocket payments for radiotherapy should be removed.

The government should introduce a new funding regime that requires companies to tender for contracts to provide diagnostic services and radiotherapy.<sup>152</sup> The tenders should be evaluated on criteria relating to quality, including ensuring geographical access. The design of the tender should ensure that there are no adverse cost impacts on the viability of GP clinics. Public hospitals diagnostic services could also compete to provide out-of-hospital services. Successful tenderers should not be able to charge patients out-of-pocket payments.

We expect that moving to this funding arrangement could be cost neutral for government, but it would depend on the outcome of the tendering process. The benefits would be significant – saving Australians \$460 million in out-of-pocket payments per year.<sup>153</sup>

# 4.5 Reduce out-of-pocket payments for people with allied healthcare plans

The federal government should reduce allied health out-of-pocket payments by changing the way services provided through chronic disease management plans and mental healthcare plans are paid for.

MBS rebates and the associated out-of-pocket payments represent about a third of the income for allied health professionals (other than optometrists).

The existing items should be withdrawn, and the money allocated to PHNs to tender locally for allied health professionals who are prepared to provide services with no (or very low) out-of-pocket payments.<sup>154</sup> PHNs should ensure that they contract with multiple providers, to promote competition and consumer choice.<sup>155</sup> Allied health services would then be available with a lower or no out-of-pocket payment for people with chronic or mental health plans.

PHNs should collect and publish information from contracted providers about patient experience of the provider, to assist in contract re-negotiations and consumer choice. PHNs should also collect information about Patient Reported Outcome Measures (PROMs).<sup>156</sup> Collection of PROMs should start at the start and end of the first

153. Based on 2020-21 expenditure data.

<sup>151.</sup> Grattan Institute made recommendations about lowering out-of-pocket payments for pathology services in our *Blood money* report: Duckett and Romanes (2016).

<sup>152.</sup> Contracts could be paid as Health Program Grants under Part IV of the *Health Insurance Act 1973.* 

<sup>154.</sup> The chronic disease and mental health plan funding is currently uncapped. PHNbased funding should be appropriately indexed to ensure access is not impeded by the change in the way funding flows.

<sup>155.</sup> If or when patient enrolment is extended to all people with chronic illness, patients should be enrolled with a GP practice in order to be eligible for these plans (see more in Section 4.6.2).

<sup>156.</sup> Kyte et al (2015).

cycle of treatment, so that if patients are improving, more allied health treatments might be funded for the patient.<sup>157</sup>

A tender-based scheme would better support people with chronic health conditions who face high out-of-pocket payments and who are most at risk of skipping care because of cost. It would also help lower the financial barriers reported by people with mental health conditions (see Figure 2.2). We estimate this could save Australians \$90 million to \$120 million in out-of-pocket payments.<sup>158</sup>

There is a risk that some allied health providers may decide not to participate in the PHN tender process, but the booming supply of allied health providers and the high proportion of income that would be under contract should help ensure a sufficient market for subsidised services.<sup>159</sup> A higher rebate or incentive payment may be required for allied health providers in regional and remote areas.

#### 4.6 Other mechanisms to reduce out-of-pocket payments

#### 4.6.1 Review the Medicare Safety Nets

The federal government should launch an independent review into the effectiveness of the Medicare Safety Nets. The last review was conducted more than 10 years ago, and the benefits provided since are unknown.

- 158. Based on estimated savings from 2019 expenditure.
- 159. In 2019, the Department of Health reported a replacement rate of 3.6 for physiotherapists, and 5.1 for occupational therapists. This is much higher than the replacement rate of 2.2 for doctors, and much higher than for the previous four years, which averaged at about 2.5 for physiotherapists, and 3.1 for occupational therapists: Department of Health (2019b), Department of Health (2019c) and Department of Health (2019d).

#### **Box 3: The Medicare Safety Net thresholds**

There are two Medicare Safety Net arrangements that aim to reduce patients' out-of-pocket payments:

The **Original Medicare Safety Net (OMSN)** – introduced in 1984 – increases the benefit paid to patients to 100 per cent of the schedule fee (up from 85 per cent) for out-of-hospital services once an annual threshold in the difference between the schedule fee and the rebate is reached. As at January 2022, the threshold is \$495.60.<sup>a</sup>

The **Extended Medicare Safety Net (EMSN)** – introduced in 2004 – pays 80 per cent of a patient's out-of-hospital out-of-pocket payments for the remainder of the year once an annual spending threshold has been reached. As at January 2022, this threshold is \$2,249.80, or \$717.90 for concession card holders.<sup>b</sup> Initially the amounts covered by the EMSN were uncapped, but since 2012-13 caps have applied for consultation items, set at 300 per cent of the MBS schedule fee up to a maximum cap of \$500.

<sup>157.</sup> The current chronic disease management plan items only fund up to five consultations with an allied health professional, exposing patients to the full costs of treatment after that. Mental healthcare plans give people 20 subsidised sessions a year, but a review is required after six sessions.

a. The OMSN threshold is indexed annually in January, in line with the Consumer Price Index (September quarter). Services Australia automatically calculates OMSN accumulation and benefits.

b. The EMSN threshold is indexed annually in January, in line with the Consumer Price Index (September quarter).

The Medicare Safety Nets (see Box 3) are complex and poorly designed. Reviews into the Extended Medicare Safety Net (EMSN) in 2009 and 2011 found that wealthier areas gain more, and benefits were concentrated to some specialties. The 2009 review found that in 2007, 55 per cent of government expenditure on the EMSN went to obstetrics and reproductive services.<sup>160</sup> The 2011 review found that 90 per cent of EMSN expenditure went to private specialist care.<sup>161</sup>

Many Australians do not benefit from the EMSN. Nearly 100,000 people hit the non-concession-card threshold each year, spending on average \$3,000 in a year.<sup>162</sup> Another 35,000 people spend close to the threshold (within 20 per cent). Many Australians may not reach the EMSN threshold because they cannot afford to spend so much on healthcare – so they forego needed care.

The federal government should review both the Original Medicare Safety Net and the Extended Medicare Safety Net to determine how well they are supporting Australians who struggle to afford their care, and how the existing benefits are distributed.

# 4.6.2 Expand patient enrolment to people with multiple chronic conditions

The federal government should expand the voluntary patient enrolment scheme to people with two or more chronic conditions. The government has taken hesitant steps towards new primary medical care funding arrangements, with an enrolment fee for people aged 70+ announced in the 2019 Budget.<sup>163</sup> But it is yet to implement the scheme.

Patient enrolment is where a patient can enrol in a GP practice and nominate a GP to be their 'usual doctor'. It can help make care more

162. Grattan analysis of ABS (2016). This is for individuals only.

affordable for people with chronic conditions by reducing their exposure to out-of-pocket payments. Greater GP stewardship over a person's care could reduce inefficiencies in areas such as routine repeat prescriptions, and routine renewal of specialist referrals.

Patient enrolment has other benefits. It fosters and formalises the relationship between a patient and a healthcare professional or practice. And it can support new practice models that allow for multi-disciplinary care.<sup>164</sup>

The federal government should evaluate voluntary patient enrolment for people aged 70+,<sup>165</sup> and then extend it to people with multiple chronic conditions. We estimate that under this reform an additional 1.7 million people younger than 70 would be eligible for the program.

Because the program is voluntary, only a subset of these patient groups would be likely to join the program. Voluntary enrolment should involve an appropriate risk-adjusted government payment to the practice, with expectations of the services that should be provided as part of enrolment.<sup>166</sup>

Additional expenditure on patient enrolment for people younger than 70 and with chronic conditions would be required, but much of it could be offset by improved continuity and efficiency of care.<sup>167</sup>

This recommendation aligns with the proposed Primary Health Care 10 Year Plan, which also extends voluntary participation to care providers (i.e. GPs accredited, or on the pathway to accreditation,

<sup>160.</sup> Savage and Van Gool (2009); and Van Gool et al (2009).

<sup>161.</sup> Van Gool et al (2011).

<sup>163.</sup> Durham (2019).

<sup>164.</sup> Duckett et al (2013).

<sup>165.</sup> Enrolment should always be voluntary for patients and providers.

<sup>166.</sup> The 2021 Department of Health Consultation Paper points to appropriate options here: Department of Health (2021e).

<sup>167.</sup> We have argued previously for blended approaches to primary care funding to promote continuity of care: Duckett et al (2017) and Swerissen et al (2018).

against the Royal Australian College of GPs).<sup>168</sup> Subject to the federal government's decision on the 10 Year Plan, the same qualifying criteria for enrolment currently proposed in the plan would also apply to the expanded patient groups.<sup>169</sup>

#### 4.6.3 Expand telehealth services to improve affordability

Telehealth services – telephone and video consultations – have proved popular during the COVID crisis (see Figure 4.2). The federal government should expand telehealth services, following a review of the implementation of telehealth in the past few years, especially its reach into rural and remote areas.<sup>170</sup>

Telehealth should not replace all face-to-face consultations, but it is an appropriate alternative in many situations. It can reduce costs for the patient, including by removing travel and time costs.<sup>171</sup>

- 169. To qualify for registration, people must have at least three face-to-face visits to the practice in two years, or at least one face-to-face visit for people in remote areas and Aboriginal Community Controlled Health Services. Registered patients are also required to have at least one face-to-face visit with the practice every two years to maintain registration.
- 170. The federal government introduced the COVID-19 telehealth items temporarily, but made some permanent in December 2021, committing to \$106 million in spending: Hunt (2021b).
- 171. Snoswell et al (2020).

**Figure 4.2: One quarter of Australian adults used telehealth services in 2020-21, and it was popular across different geographic areas** Proportion of Australian adults who had a telehealth consultation for their own health, 2020-21



Notes: Adult Australians include people aged 15 years and over. Survey sample size was 28,400.

Source: ABS (2021a).

<sup>168.</sup> The 10 Year Plan refers to patient enrolment as 'voluntary patient registration': Department of Health (2021e).

### Appendix A: How we analysed Medicare and PBS administrative data

We accessed routine data from the Australian Bureau of Statistics (ABS) to look at trends in healthcare expenditure. The data was obtained through the Multi-Agency Data Integration Project (MADIP), which is a database of datasets from across government, linked to create a picture of person-level interactions with government or government-subsidised services.<sup>172</sup>

#### A.1 Scope and coverage of MADIP

MADIP contains Census, personal income, social security, Medicare Benefits Scheme (MBS), and Pharmaceutical Benefits Scheme (PBS) data of Australians. The data are held together by a Person Linkage Spine, which is built from three core datasets: the Medicare Consumer Directory, Tax Data, and DOMINO Centrelink Administrative data.

MADIP covers all people in the Person Linkage Spine who met one or more of the following conditions between 2011 and 2019 or 2020:

- they used at least one MBS service;
- they obtained at least one PBS prescription;
- they were a benefit payment recipient, according to the DOMINO Centrelink Administrative data;
- they submitted a personal income tax return for at least one financial year;
- they were in an approved training contract with an employer, according to the Apprentice and Trainee (AT) data;
- they were enrolled in or completed a university course with an Australian institution, according to the Higher Education data;

- they were enumerated in the 2011 Census; or
- they were enumerated in the 2016 Census.

Because MADIP has so much coverage, it is effectively representative of the Australian population. However, there may be some under-coverage and over-coverage.<sup>173</sup>

#### A.2 Privacy

To protect privacy, the MADIP data is available only through a secure platform, following project application and approval. The use of data is governed by privacy law, and ABS privacy and security protections. Any data extracted from the secure platform must not be able to be deidentified. And the secure platform is available only for statistical and research purposes (never for compliance).

We are approved researchers,<sup>174</sup> and we analysed the linked datasets in a secure environment. Outputs of these analyses do not allow identification of individual records, thus protecting privacy. All data in this report were approved for use.

174. Access to MADIP is granted by the ABS to approved researchers working in approved organisations. Approved researchers must attend training in privacy and controls as part of access approval.

<sup>172.</sup> It can be found via the ABS Datalab: Parker (2017).

<sup>173.</sup> Population groups that may cause under-coverage include: recently arrived permanent migrants who are not yet eligible for Medicare; non-earning partners/family of working visa holders; non-earning foreign students; Defence Force personnel; prisoners; and recent births not yet registered with Medicare. Population groups that may cause over-coverage include: unremoved overseas departures (long-term and permanent); and unregistered deaths. Undetected duplicate records and missed links may also contribute to coverage issues.

#### A.3 Analysis

#### A.3.1 Datasets

We analysed data from the following linked datasets in MADIP:

- MADIP core module;
- Geography module;
- Medicare Benefits Schedule (MBS), 2011 to June 2020 data (custom extract);
- Pharmaceutical Benefits Scheme (PBS), 2011 to June 2020 data;
- Census of Population and Housing, 2016; and
- DOMINO Centrelink Administrative data, 2011 to June 2020.

#### A.3.2 Methodology and limitations

We used the MADIP core module as the backbone for population analysis.<sup>175</sup> Details of the MADIP variables can be found on the ABS website.<sup>176</sup>

We then linked the other datasets to the spine and analysed trends in patient out-of-pocket payments and fees charged.

#### Medicare data

The custom extract of the Medicare dataset included patient-linked variables for MBS item numbers, Broad Type for Service (BTOS), specialty type (SPR RSP), fee charged, and the benefits paid for both patient-billed and direct-billed transactions. Patient out-of-pocket payments were calculated by subtracting the benefit paid from the fee charged for patient-billed transactions.

Issues to note with the Medicare dataset:

- The dataset did not provide information on the number of services used per person. Each row in the dataset did not represent a single service (i.e.transaction), because the rows were summed for the year where a person's MBS item number, BTOS, and specialty code were the same.<sup>177</sup>
- We used the specialty code type (SPR RSP) to assign specialty service types. We only used these to analyse BTOS group 'specialist attendances'. The Department of Health provided a spreadsheet to assign the code, but noted that it may not be perfectly accurate because it was established for transaction purposes. Therefore, we conducted a stress-test on these specialty codes against MBS items that were for specific specialty types only (such as psychiatry) and they checked out.
- There is Medicare data for 2020, but we limited our analysis to 2019 because the use of healthcare services in 2020 was significantly affected by the COVID-19 pandemic, and the data was only provided up to June 2020.

<sup>175.</sup> The MADIP handbook identifies that this dataset should be fairly representative of the Australian population, with some over- and under- estimates (as per above). Note that for the 2016 core dataset we selected for rows where there was a MADIP event flag, and a MADIP vital flag. This is to select all individuals in Australia that were alive in 2016. This provided a dataset of 25 million people, slightly above the ABS population estimate for that year. However, because the data analysis looked at healthcare transactions that occurred rather than total population statistics, this should only have a minor affect on the findings.
176. ABS (2022).

<sup>177.</sup> Note that Figure 3.4 is limited to initial consultations only, as there should only be one initial consultation per specialty per person per year. By limiting the sample to transactions that had the relevant rebate, we could be assured each transaction reflected a single service (and not aggregated data).

• Our analysis of specialist charging practices was limited to initial consultations because the raw data summed the fees for ongoing services. This means that we could not explore heterogeneity of charging practices within particular specialties.

The raw Medicare dataset also had some anomalies that were confusing:

- Where the fee charged was negative, and benefit paid was negative (460,000 rows in 2016, and 160,000 rows in 2019). This scenario could be a refunded transaction.
- Where the fee charged was negative, and the benefit paid was positive (300 rows in 2016, and 150 rows in 2019).
- Where the fee charged was negative, and the benefit paid was zero (less than 100 rows in 2016, and less than 100 rows in 2019).
- Where the fee charged was zero, and benefit paid was negative (200 rows in 2016, and less than 100 rows in 2019). This could be where a rebate was accidentally paid twice, and then withdrawn.
- Where the fee charged was zero, and benefit paid was positive (58,000 rows in 2016, and 54,000 rows in 2019). This could be a benefit payment that was delayed, or an adjustment.
- Where the fee charged was positive, and benefit paid was zero (150 rows in 2016, and less than 100 rows in 2019). These all related to MBS item 60503.

We contacted the ABS and Services Australia to understand how to resolve these transactions, and decided the best option was to exclude from the dataset any individuals who had any of these anomalies in their transactions for a given year. This way we could be assured that any of our findings did not include inaccurate representations of out-ofpocket payments. This approach had only very minor impacts on our findings, because these cases represent a very small proportion of the sample, and most findings are reported as medians.

- In 2016, 396,000 people had at least one of these anomalies, so they were excluded from data analysis for that year.
- In 2019, 157,000 people had at least one of these anomalies, so they were excluded from data analysis in that year.

Analysis of population statistics between the original dataset and the updated dataset showed no change to population statistics by age, chronic disease status, and concession card status. While this approach means our findings may not exactly match the real world, it is the best approach we could determine to effectively, and most accurately, take account of the anomalies. These people were omitted only when the analysis included Medicare data.

#### PBS data

The PBS dataset included patient-linked variables for the number of scripts above and/or below the co-payment threshold, and patient expenditure on medications above the co-payment threshold. The data was provided in six-month periods, with patient expenditure figures reported in ranges of \$50 (e.g.\$0 to \$50 and \$50 to \$100). This means that PBS expenditure on above co-payment scripts is not exact.

Patient expenditure on below co-payment PBS-listed drugs was not included, but imputed. Publicly available data on patient expenditure on below co-payment scripts allowed us to find the median of \$13.15 per under-copayment script for 2019-20.<sup>178</sup> We found that the costs of below co-payment scripts were clustered tightly around the median, so we comfortably assumed that each patient spent this amount on

<sup>178.</sup> Department of Health (2021c).

their below co-payment drugs. There are two key limitations with this approach:

- The under-copayment script amount of \$13.15 is over the concession card co-payment threshold of \$6.60. This means that our data over-inflates what a concession card holder spent on these scripts. However, very few drugs cost less than \$6.60.
- The PBS started reporting patient expenditure on undercopayment scripts only from 2018-19. Therefore, we used the \$13.15 figure from 2019-20 for our analysis of both 2016 and 2019 expenditure. This means our 2016 expenditure figure may be slightly over-inflated, because the cost per drug may have been cheaper then.

The PBS dataset does not include data on over-the-counter medications, so these are not part of our analysis.

To identify people spending close to or at the PBS safety net, we analysed co-payment contributions (above and below co-payments) that were within 20 per cent of the safety net threshold, and at or over the safety net threshold for both concession card holders and non-concession card holders. But because the PBS expenditure data is in \$50 ranges for a six-month period, the number of people identified is only an estimate.<sup>179</sup> Note that we may also be under-reporting the figure because we analyse it only at the individual, and not at the family level. Because family eligibility for the safety net requires people to know about it and fill out a form, it is unlikely that all families eligible would receive the additional benefits. We were also not able to determine the length of eligibility for concession card status in a calendar year.

#### Census data

The Census data includes patient-linked variables for a person's age, location, and household income. The most recent population Census was in 2016. Analysis of demographic data such as income status was therefore referenced to this time period.

#### Centrelink data

The Centrelink data include details about a person's welfare benefits, if any. We imputed a person's concession card status by determining whether they received any of the welfare benefits in a calendar year that make people eligible for concession cards.<sup>180</sup> This test is not perfect because people may have become eligible for Centrelink benefits at the end of a calendar year, which then may not have affected their out-of-pocket payments for that whole year (as we assumed).

In the 2016 MADIP data, our assignment of concession card status resulted in 28 per cent of the population having a concession card -7 million people. Government data shows that for that year, there were about 6.2 million concession card holders (26 per cent of the population).

<sup>179.</sup> To ensure we were confident that people spending a certain amount were hitting the safety net threshold, we set the threshold higher than it actually is. We set the concession safety net threshold at \$450, and the non-concession safety net threshold at \$1,550.

<sup>180.</sup> Services Australia (2022).

### Appendix B: How we identified people with chronic conditions

A key part of our analysis was looking at healthcare expenditure of people with chronic conditions. But the MADIP dataset (see Appendix A) did not provide information about people's health status.<sup>181</sup> The Medicare dataset (MBS) only provided information about the health services used, and the Pharmaceutical Benefits Scheme (PBS) data only provided data on the number of scripts prescribed per person per year, by Anatomical Therapeutic Chemical (ATC) classification.<sup>182</sup>

We created an artificial chronic condition indicator in the MADIP dataset that identifies people with one, two, three, or more chronic conditions.<sup>183</sup>

#### B.1 Methodology

We imputed the number of chronic conditions per person from a person's use of Medicare services and their prescribed medications.

Using the Medicare and PBS datasets combined, we applied the following assumptions:

 If a person used at least one Medicare item that related to having a chronic disease management plan in the past three years, then that would count as that person having at least one chronic condition in MADIP;<sup>184</sup> and/or

- If a person used Medicare item number 132 (specialist consultation if a person has two or more morbidities) at least once in the past three years, then that would count as that person having two or more chronic conditions in MADIP;<sup>185</sup> and/or
- If a person had more than five scripts in one ATC group in the past year, that would be counted as one chronic condition in MADIP.
- If a person had more than five scripts in each of two ATC groups in the past year, that would be counted as two chronic conditions in MADIP.
- If a person had more than five scripts in each of three or more ATC groups in the past year, that would be counted as three or more chronic conditions in MADIP.

Note the following about our application of ATC classifications:

- ATC groups J and P were excluded because they could be used for an infection anywhere in the body (e.g.systematic antibiotics can be used to treat urinary tract infections, gastroenteritis, or bacterial pneumonia). If someone is on multiple courses of antibiotics, it is likely they will have an underlying chronic disease which would fall into another category (e.g.people on immunosuppressive medications are more at risk of infection so may have multiple different infections in a year).
- ATC group D was also excluded, because only a small proportion of people on dermatological drugs might have a chronic condition.
- ATC group N was broken into two groups, because this was the only category where MADIP provided ATC sub-groups. ATC group

<sup>181.</sup> ABS (2019).

<sup>182.</sup> WHO (2022).

<sup>183.</sup> We defined chronic condition as a current condition lasting six months or more. The ABS Patient Experiences Survey and the ABS National Health Survey use similar definitions.

<sup>184.</sup> Medicare item numbers used (for 2016): 732, 721, 723, 729, 731, 10950-to-10970, 10997, 81100, 81125.

<sup>185.</sup> Note: Medicare item number does not apply to psychiatry.

N05 included drugs for antipsychotics, anxiolytics, sedatives, and other. ATC group N06 included drugs for anti-depressants, and nootropics. These were treated separately because the former group could indicate diseases of the nervous system such as epilepsy, and the latter could indicate anxiety related disorders.

#### **B.2** Coverage tests

#### B.2.1 MBS and PBS test overlap

To test our methodology, we looked at how well the outcomes of the MBS and PBS assumptions overlapped – i.e. how many people were on a chronic disease management plan and taking more than five PBS scripts in a year Table B.1 shows there was fairly good overlap in the two tests, with most people being identified by both the PBS and MBS assumptions. It is not surprising that more people were identified by the PBS assumptions, because people are more likely to be on a course of medications, and not necessarily get a chronic healthcare plan. Some types of chronic health conditions, such as diabetes, also do not require a chronic healthcare plan.

Table B.1: How well do the PBS coverage tests line up with the MBS chronic coverage tests (in 2016)?

	Identified	Identified	Identified by
	by PBS test	by MBS test	the PBS and
	only	only	MBS overlap
At least one chronic	3.4 million	790,000	4.9 million
health condition	people	people	people
At least two chronic	2.8 million	780,000	720,000
health conditions	people	people	people

#### B.2.2 Similarity to National Health Survey findings

The National Health Survey (NHS) provides data on the number of Australians with chronic health conditions, by their number of chronic health conditions.<sup>186</sup> We tested our results against the findings of the NHS. Table B.2 shows that our MADIP chronic disease indicator has good coverage. It also showed that the NHS findings on chronic disease status by age for at least one chronic condition mirrored our findings, except for some slight over-representation with the MADIP indicator in children.

 Table B.2: How well do the NHS findings line up with our artificial MADIP chronic condition indicator?

Number of conditions	NHS survey findings (2017-18) (% pop and number)	MADIP artificial ID (2016) (% pop and number)
No chronic condition	53% / 12.7 million	61.4% / 15 million
1 chronic condition	27% / 6.5 million	25.9% / 6 million
2 chronic conditions	12% / 2.7 million	9.2% / 2.2 million
3 or more chronic conditions	9% / 2.1 million	3.5% / 860,000

<sup>186.</sup> The NHS defined chronic conditions as conditions that contribute to premature mortality and morbidity. The NHS asked people if they had a chronic illness when they reported that their condition was current and long-term; that is, their condition was current at the time of interview and had lasted, or was expected to last, six months or more. See more here: ABS (2018).

#### **B.3** Limitations

- The people identified as having chronic conditions are likely to be sicker on average than the real population of people with chronic conditions because we can't identify people with chronic conditions who did not access care. This suggests that our findings in Figure 2.1 may be overstated.
- The estimated number of people with chronic conditions may be inflated due to potential over-prescribing.
- Some patients might have multiple related chronic diseases within the one ATC classification (e.g. someone with both heart failure and hypertension would probably be taking medications from ATC group C).
- There may be some over-representation of people who take ongoing medications (more than five in a year) that are not related to a chronic condition, such as the contraceptive pill, sedatives, hypnotics, and sleeping pills.<sup>187</sup>
- There may be some under-representation of people with chronic conditions who do not take many medications, or get their medications in large batches through one prescription. For example, people who have a thyroid condition can get a six-month supply of tablets, and would therefore not require five or more scripts a year.
- People with multiple mental health conditions may not have been adequately captured. For example, people with depression and anxiety – two different chronic health conditions – would be taking drugs in the same ATC group.

<sup>187.</sup> Note that people who take the contraceptive pill were probably excluded because they usually get a script every four months, and would therefore not meet the threshold of more than five scripts a year.

### Appendix C: Inconsistent reporting of outpatient clinic wait times

Table C.1: Public outpatient wait-time reporting is poor

State	Reporting frequency	Reporting by specialty type	Type of appointment	Metrics	Geographic coverage
VIC	Quarterly	Yes	New vs review; Urgent vs routine	Median wait time (days) and 90th percentile; number of appointments booked; proportion of patients seen within target time	Statewide
QLD	Quarterly	Yes	Category 1, 2, or 3	90th percentile wait times; number of initial service events that were medical or surgical; % patients waiting within the clinically recommended time	Statewide
SA	Quarterly	Yes, but reported by specialty separately for each hospital	Routine (Category 2), non- urgent (Category 3), or non-assessed referrals only	Median wait time (months)	Statewide
WA	Every six months, reporting on hold from 2018	No	Combined for urgent, semi-urgent, non-urgent	Number of patients waiting for first-time appointments and their median wait time (months); Number of patients who had a first appointment and their median wait time (months)	Statewide
TAS	Indicative wait times only	Yes	Urgent, semi-urgent, non- urgent	75th percentile wait time (days)	No statewide aggregate, separate reporting for three regions
NSW, ACT, NT	Data not publicly available				

Sources: Victorian Agency for Health Information (2021), Queensland Health (2021), Tasmanian Government (2022), Government of Western Australia (2018) and Government of South Australia (2022).

### Appendix D: How we estimated the costs and benefits of our recommendations

#### D.1 Expanding outpatient clinics

We recommended that state governments set a new target of less than 90 days wait time for routine first appointments, and 30 days for urgent appointments.<sup>188</sup> The cost of expansion was based on estimates of additional demand (i.e.the number of non-admitted service events). We estimated costs using data on the number of non-admitted service events from the Australian Institute of Health and Welfare (AIHW) for 2019-20.<sup>189</sup>

We estimated costs by multiplying the number of service events in each Tier 2 Clinic category by the National Efficient Price (NEP) and their respective cost weights. We sourced NEP and cost weights from the Independent Hospital Pricing Authority.<sup>190</sup>

Reported data on outpatient waiting lists is a 'stock' measure; to reduce waiting times we need to change flow. The change in flow required will differ in each state and in each specialty. In the absence of good information on flow we have costed an expansion of 10 per cent in annual provision, on top of annual growth and inflation, to achieve a significant reduction in wait times. This can be phased in over time.

Our method has some limitations. Our estimates were based on data from 2019-20 only and did not adjust for growth trends. We did this because it was difficult to get data for 2018-19 from a public source. We only included procedural and clinical service events in the scope of our recommendation, so demand for allied health and clinical nurse specialist clinics is not accounted for. Lastly, given insufficient granularity in the data, we could not make detailed adjustments, such as adjustments for paediatric events, to our costings.

An expansion of 10 per cent will cost state governments \$485 million annually. Under the current Commonwealth-state funding arrangements, some of this cost might be met by the Federal Government which pays for 45 per cent of the cost of hospital activity growth at the National Efficient Price. However, that contribution is subject to 6.5 per cent annual growth caps (at state and national levels), so in states where the cap applies, additional outpatient activity would not attract any additional federal support.

We therefore took a conservative costing approach and assumed that the full cost would be met by state governments. In reality, the \$485 million cost is an upper bound for states. To the extent some costs would be met by the Federal Government, those costs are already included in the forward estimates.

#### D.2 Bulk-billing specialist private clinics

#### Estimates of government costs

We assume total funding of \$120 million is needed to run a pilot with 10 PHNs, 10 per cent of which is used to support the PHN's project administration costs.

<sup>188.</sup> Target set for the 90th percentile of patients.

<sup>189.</sup> AIHW (2017).

<sup>190.</sup> IHPA (2021).

#### Estimates of benefits for Australians

We estimate that the average cost of a specialist appointment is \$182. To calculate this, we determine the government rebate to be \$89.<sup>191</sup> We then add to this the average patient out-of-pocket cost (\$93).<sup>192</sup>

To calculate patient benefits, we assume that the new cost of a specialist appointment will be between \$150 and \$180, and be funded by the government, with no out-of-pocket payments by patients.

If the new cost is \$150 per appointment, then total funding of \$120 million (with 10 per cent set aside for PHNs' administration costs) could fund 720,000 additional bulk-billed specialist appointments per year and save patients \$67 million in out-of-pocket payments.<sup>193</sup> If the new cost is \$180 per appointment, then funding could support 600,000 additional bulk-billed appointments and save patients \$56 million in out-of-pocket payments.<sup>194</sup>

#### D.3 Secondary consultations

#### Estimates of government costs

We assume that if the government invested \$100 million in funding across 31 PHNs for this scheme, and 10 per cent was allocated to support PHNs' project administration costs, it would fund about 1 million secondary consultations.

191. Calculated as the total out-of-hospital specialist attendance benefits paid divided by the total number of out-of-hospital specialist attendance services provided in 2020-21: Department of Health (2021a).

- 192. This is the average patient contribution for out-of-hospital specialist attendances in 2020-21: Department of Health (ibid).
- 193. Calculated as 720,000 multiplied by \$93 the average out-of-pocket payment per specialist appointment.
- 194. Calculated as 600,000 multiplied by \$93.

We estimate that the average cost per secondary consultation will be \$89, of which \$65 is paid to the consulting physician<sup>195</sup> The GP also receives \$24.<sup>196</sup> \$89 is also the average rebate cost to government for specialist appointments.

At this unit cost, we estimate that the net cost to government for this scheme would only be about \$10 million, assuming that about 10 per cent of the secondary consultations would result in a specialist referral anyway.<sup>197</sup>

#### Estimates of benefits for Australians

We assume that funding of \$100 million will be allocated across 31 PHNs, and that the average cost per secondary specialist consultation would be \$89 (as per above).

We also assume that 10 per cent of total funding will be used to support PHNs' project administration costs, and that 10 per cent of secondary consultations go on to require a referral, and so we have excluded these from out-of-pocket savings calculations.<sup>198</sup>

Under these assumptions, our recommendation could provide 1 million additional secondary consultations, and translate to about \$85 million in patient out-of-pocket payments avoided.

- 196. Based on MBS Item 23, discounted for the fact that the GP phones a specialist rather than providing a full patient consultation.
- 197. Job et al (2021).
- 198. We recognise that some specialists already provide an informal secondary consultation service to GPs with whom they have a relationship. Typically these consultations provide only verbal advice. We assume these consultations will continue and not convert to being paid under the new scheme.

<sup>195.</sup> Based on MBS Item 104, discounted on the assumption that not all secondary consultations will require written advice.

#### D.4 Removing rebates for high-charging specialists

#### Estimates of government costs

This recommendation is likely to require only administrative changes to cap specialist fees, so we assume there will be minimal cost to government to implement.

#### Estimates of benefits for Australians

We first identify patients who were charged more than twice the MBS scheduled fee for their specialist appointment.<sup>199</sup> We then identified a comparative group of patients who were charged at about double the scheduled fee and determined their median out-of-pocket payment, by speciality.<sup>200</sup>

We assume that capping the specialist fees at no more than twice the scheduled fee will reduce the out-of-pocket payments of overcharged patients to similar amounts paid by the comparative group (i.e.patients charged at twice the scheduled fee). To calculate total out-of-pocket payments that overcharged patients would pay if they were charged at twice the scheduled fee, we multiply the number of overcharged patients by the median total out-of-pocket payments of the comparator group for each specialty. We then calculate patient savings as the difference between actual out-of-pockets paid (i.e.more than twice the

scheduled fee) and hypothetical reduced out-of-pockets that would be paid (i.e.at twice the scheduled fee).<sup>201</sup>

Because these figures apply only to initial consultations, we assumed that out-of-pocket savings would be similar if applied to other specialist appointment types. We calculated that initial appointments (for items 104, 110, and 296) make up 30 per cent of all specialist attendance appointments in 2019-20. Therefore, we inflated the out-of-pocket savings for initial appointments accordingly to make them representative of all specialist appointments.<sup>202</sup>

#### D.5 Polypharmacy review

#### Estimates of government costs

We assume that this recommendation is likely to be cost neutral because the administrative costs of establishing and implementing the AI software to trigger a medication review will be balanced out by efficiency gains and reductions in unnecessary prescriptions.

#### Estimates of benefits for Australians

We estimate that 2.9 million Australians have five or more medications per year.<sup>203</sup> We assume that 10 per cent of these people are likely to have potentially inappropriate medications and therefore benefit from a medication review. The evidence on the prevalence of potentially

<sup>199.</sup> We included only MBS items 104, 110, and 296 in our calculations because they could be used to identify initial appointments. This includes the specialties of dermatology, urology, obstetrics, ophthalmology, neurology, paediatrics, rheumatology, endocrinology, respiratory and sleep, general medicine, gastroenterology, cardiology, and psychiatry.

<sup>200.</sup> Comparing the overcharged patients against those charged at double the scheduled fee provides a conservative estimate because it assumes that all specialist will maximise the fees they can charge when in practice there is likely to be some variation.

<sup>201.</sup> We assume 10 per cent of overcharged patients will still miss out on this out-ofpocket reduction because their doctor will opt out of the scheme. These patients are excluded from our calculations.

<sup>202.</sup> This estimate is still likely to be conservative because we only calculated out-ofpocket savings for a subset of speciality types, as noted above.

<sup>203.</sup> Grattan analysis of 2019 MADIP data. Due to data limitations, the number of medications per person was estimated from ATC groups rather than specific drugs. This means that our estimates are likely to be conservative, because people can have multiple medications within an ATC group.

inappropriate medications varies in literature (e.g.from 56 per cent to 6 per cent), so we adopt a more conservative estimate of 10 per cent.<sup>204</sup>

#### D.6 Bulk-billed radiology, radiotherapy, and pathology

#### Estimates of government costs

Costings for this recommendation will depend on the outcome of the tendering process. If tendering succeeds in lowering costs of providing services, then this recommendation would be close to cost neutral to implement.

#### Estimates of benefits for Australians

We estimated the patient benefit as being equal to the total out-of-pocket payments paid for radiology, radiotherapy, and pathology, because these services would be entirely bulk-billed under our recommendation. Total out-of-pocket payments for radiology, pathology, and radiotherapy in 2020-21 were \$409 million, \$2 million, and \$47 million respectively.

#### D.7 Reducing allied health out-of-pocket payments

#### Estimates of government costs

Federal Government expenditure for allied health services will stay the same. It is merely the funding arrangement that will change.

#### Estimates of benefits for Australians

In 2019, there were about 700,000 people who paid out-of-pocket for services under their chronic disease management plan, and 770,000 who paid out-of-pocket for services under their mental health plan – the

median out-of-pocket payments they pay per year are about \$60 and \$220 respectively.  $^{\rm 205}$ 

We then estimate potential patient out-of-pocket savings by multiplying the number of patients in a chronic disease management plan, or a mental health plan, by the assumed range of savings (i.e.\$20 to \$30 out-of-pocket per year for people on chronic disease management plans, and \$100 to \$125 out-of-pocket per year for people on a mental health plan). It is expected that a switch to service tendering will reduce fees charged by allied health providers.

#### D.8 Expanding patient enrolment

#### Estimates of government costs

We estimate that an additional 1.7 million people would be eligible to be enrolled if the program was expanded to people younger than 70 who have at least two chronic conditions.<sup>206</sup> Under the current government plan, the average cost per person over the age of 70 is about \$170 – estimated by dividing the total government budget (\$448 million over three years) by the number of Australians aged 70 and older (about 2.7 million).

We estimate the cost of expanding the program as \$170 multiplied by the estimated number of people with two or more chronic conditions under 70 years, which equates to about \$100 million per year. However, this estimate will vary depending on how the government defines eligibility for the program, including how it defines a chronic illness.<sup>207</sup>

<sup>204.</sup> Mahlknecht et al (2021); and Koper et al (2012).

<sup>205.</sup> Grattan analysis of ABS (2019).

<sup>206.</sup> Grattan analysis of ABS (2016).

<sup>207.</sup> Note that the National Health Survey estimates for multiple chronic illnesses are higher but these are self-reported statistics.

#### Estimates of benefits for Australians

We estimate that 1.7 million people younger than 70 have two or more chronic conditions. These people where identified from MBS data from 2016, according to the methodology in Appendix B. We focus on these people because those with multiple chronic illnesses are likely to benefit the most from multi-disciplinary care.

### **Bibliography**

- ABS (2014). General Social Survey: Summary Results, Australia. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/people/people-andcommunities/general-social-survey-summary-results-australia/2014. (2016). Multi-Agency Data Integration Project (MADIP). Australian Bureau of Statistics. https://www.abs.gov.au/statistics/microdata-tablebuilder/availablemicrodata-tablebuilder/multi-agency-data-integration-project-madip. (2017). Household Expenditure Survey. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/economy/finance/householdexpenditure-survey-australia-summary-results/latest-release. (2018). National Health Survey. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/health/health-conditions-andrisks/national-health-survey-first-results/latest-release. (2019). Multi-Agency Data Integration Project (MADIP). Australian Bureau of Statistics. https://www.abs.gov.au/statistics/microdata-tablebuilder/availablemicrodata-tablebuilder/multi-agency-data-integration-project-madip. (2021a). Patient Experiences Survey. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/health/health-services/patientexperiences-australia-summary-findings/latest-release. (2021b). National, state and territory population. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/people/population/national-stateand-territory-population/mar-2021. (2022). Multi-Agency Data Integration Project (MADIP). Australian Bureau of Statistics. https://www.abs.gov.au/statistics/microdata-tablebuilder/availablemicrodata-tablebuilder/multi-agency-data-integration-project-madip.
- AIHW (2017). *Non-admitted patient care 2015–16: Australian hospital statistics*. Australian Institute for Health and Welfare. https://www.aihw.gov.au/reports/hospitals/ahs-2015-16-non-admitted-patient-care/contents/table-of-contents.
- (2021). *Health Expenditure Australia 2019-20*. Australian Institute of Health and Welfare. https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2019-20/data.
- Australasian College of Dermatologists (2021). *Federal Pre-Budget Submission 2021-22*. https://treasury.gov.au/sites/default/files/2021-05/171663\_australasian\_college\_of\_dermatologists.pdf.
- N. Bates et al (2020). Bates, N., Callander, E., Lindsay, D. and Watt, K. "Patient co-payments for women diagnosed with breast cancer in Australia". *Supportive Care in Cancer* 28, pp. 2217–2227. https://link.springer.com/article/10.1007/s00520-019-05037-z.
- D. W. Bates et al (2021). Bates, D. W., Levine, D., Syrowatka, A., Kuznetsova, M., Craig, K. J. T., Rui, A., Jackson, G. P. and Rhee, K. "The potential of artificial intelligence to improve patient safety: a scoping review". *npj Digital Medicine* 4.1, p. 54. https://doi.org/10.1038/s41746-021-00423-6.
- Bayati et al (2019). Bayati, M., M.H., M. and V, Y.-F. "A paradoxical situation in regressivity or progressivity of out of pocket payment for health care: which one is a matter of the health policy maker's decision to intervention?" *Cost Effectiveness and Resource Allocation* 17.28. https://doi.org/10.1186/s12962-019-0197-0.
- Burdorf, A. and Schuring, M. (2015). "Poor Health as Cause and Consequence of Prolonged Unemployment: Mechanisms, Interventions, and Policy Recommendations In: Vuori J., Blonk R., Price R. (eds) Sustainable Working Lives. Aligning Perspectives on Health, Safety and Well-Being". *Springer, Dordrecht*. https://doi.org/10.1007/978-94-017-9798-6\_12.

- Callander et al (2017). Callander, E., Corscadden, L. and Levesque, J. F. "Out-of-pocket healthcare expenditure and chronic disease – do Australians forgo care because of the cost?" *Australian Journal of Primary Health* 23.1, pp. 15–22. DOI: 10.1071/PY16005.
- Callander, E. and Fox, H. (2018). "Changes in out-of-pocket charges associated with obstetric care provided under Medicare in Australia". *Australian and New Zealand Journal of Obstetrics and Gynaecology* 58.3, pp. 362–365. ISSN: 1479828X. DOI: 10.1111/ajo.12760.
- Callander et al (2019a). Callander, E., Bates, N., Lindsay, D., Larkins, S., Topp, S. M., Cunningham, J., Sabesan, S. and Garvey, G. "Long-term out of pocket expenditure of people with cancer: comparing health service cost and use for indigenous and non-indigenous people with cancer in Australia". *International Journal for Equity in Health* 18.32. https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-019-0931-4.
- Callander et al (2019b). Callander, E., Fox, H. and Lindsay, D. "Out-of-pocket healthcare expenditure in Australia: trends, inequalities and the impact on household living standards in a high-income country with a universal health care system". *Health Economics Review* 9.1, p. 10. https://pubmed.ncbi.nlm.nih.gov/30859357/.
- Capurro et al (2022). Capurro, D., Coghlan, S. and Pires, D. *How data can prevent over-diagnosis*. Melbourne University: Pursuit. https://pursuit.unimelb.edu.au/articles/how-data-can-help-prevent-overdiagnosis.
- Chalmers et al (2019). Chalmers, K., Elshaug, A. G. and Larkin, S. "First steps towards price transparency: comparability of online out-of-pocket tools from Australian private health funds". *Australian Health Review* 44 (3), pp. 347–354. https://doi.org/10.1071/AH19109.
- Chandra et al (2021). Chandra, A., Flack, E. and Obermeyer, Z. *The Health Costs of Cost Sharing*. NBER Working Paper No. 28439. National Bureau of Economic Research. https: //www.nber.org/system/files/working\_papers/w28439/w28439.pdf.

- Chen et al (2021). Chen, S., Shafer, P. R., Dusetzina, S. B. and Horný, M. "Annual Out-Of-Pocket Spending Clusters Within Short Time Intervals: Implications For Health Care Affordability". *Health Affairs* 40.2, pp. 274–280. 10.1377/hlthaff.2020.00714.
- Choudhury, A. and Asan, O. (2020). "Role of Artificial Intelligence in Patient Safety Outcomes: Systematic Literature Review". *JMIR Med Inform* 8.7, e18599. http://medinform.jmir.org/2020/7/e18599/.
- Consumers Health Forum of Australia (2018). *Out of pocket pain*. https://chf.org.au/publications/out-pocket-pain.
- Cutler et al (2019). Cutler, R. L., Torres-Robles, A., Wiecek, E., Drake, B., Van der Linden, N., Benrimoj, S. I. C. and Garcia-Cardenas, V. "Pharmacist-led medication non-adherence intervention: reducing the economic burden placed on the Australian health care system". *Patient preference and adherence* 13, p. 853.
- Deloitte Access Economics (2016). *Financial impacts of breast cancer in Australia*. Breast Cancer Network Australia. https://www2.deloitte.com /content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-financial-impact-breast-cancer-180917.pdf.
- Department of Health (2017). Australia's Future Health Workforce Dermatology. https://www.health.gov.au/sites/default/files/documents /2021/03/dermatology-australia-s-future-health-workforce-report.pdf.
- (2019a). Evaluation Report of the Diabetes Care Project. https: //www.health.gov.au/sites/default/files/documents/2019/09/evaluationof-the-diabetes-care-project-evaluation-report-of-the-diabetes-careproject.pdf.
- (2019b). Factsheet Physiotherapists. https://hwd.health.gov.au/resources/publications/factsheet-alldphysiotherapists-2019.pdf.
- (2019c). Factsheet Occupational Therapists. https://hwd.health.gov.au/resources/publications/factsheet-alldoccupational-therapists-2019.pdf.

- Department of Health (2019d). *Factsheet Medical Practitioners*. https: //hwd.health.gov.au/resources/publications/factsheet-mdcl-2019.pdf.
- (2021a). Statistics under Medicare: Annual Medicare statistics. https://www1.health.gov.au/internet/main/publishing.nsf/Content/Med icare%5C%20Statistics-1.
- (2021b). PBS Expenditure and Prescriptions Report 1 July 2020 to 30 June 2021.

https://www.pbs.gov.au/statistics/expenditure-prescriptions/2020-2021/PBS\_Expenditure\_and\_Prescriptions\_Report\_1-July-2020\_to\_30-June-2021.pdf.

- (2021c). Report on Under Co-payment Prescriptions 2020-21 (by date of supply). https://www.pbs.gov.au/info/statistics/under-co-payment/ucp-data-report.
- (2021d). National Medical Workforce Strategy 2021–2031. https: //www.health.gov.au/sites/default/files/documents/2022/01/nationalmedical-workforce-strategy-2021-2031\_0.pdf.
- (2021e). Consultation Draft Future focused primary health care: Australia's Primary Health Care 10 Year Plan 2022-2032. https://consultations.health.gov.au/primary-care-mental-healthdivision/draft-primary-health-care-10-year-plan/supporting\_document s/PHC%5C%2010%5C%20Year%5C%20Plan%5C%20%5C%20Con sultation%5C%20Draft%5C%20%5C%20October%5C%202021.pdf.
  - (2022a). Rural Bulk Billing Incentives.
     https://www.health.gov.au/initiatives-and-programs/rural-bulk-billingincentives.

(2022b). HELP debt reduction for rural doctors and nurse practitioners.

https://www.health.gov.au/sites/default/files/documents/2022/01/fact-sheet-help-for-rural-doctors-and-nurse-practitioners-fact-sheet-help-for-rural-doctors-and-nurse-practitioners.pdf.

Dobrosak, C. and Dugdale, P. (2021). "Issues for reregulation of private hospital insurance in Australia". *Australian Health Review* 45 (3), pp. 290–296. https://pubmed.ncbi.nlm.nih.gov/33626314/.

- Duckett et al (2013). Duckett, S., Breadon, P. and Ginnivan, L. *Access all areas: new solutions for GP shortages in rural Australia*. Melbourne, Vic.: Grattan Institute.
- Duckett, S. and Romanes, D. (2016). *Blood money: paying for pathology services*. Melbourne, Vic.: Grattan Institute.
- Duckett et al (2017). Duckett, S., Swerissen, H. and Moran, G. *Building better foundations for primary care*. Melbourne, Vic.: Grattan Institute.
- Duckett et al (2019). Duckett, S., Cowgill, M. and Swerissen, H. *Filling the gap: A universal dental scheme for Australia*. Melbourne, Vic.: Grattan Institute.
- Duckett, S. and Moran, G. (2021). *Stopping the death spiral: creating a future for private health*. Melbourne, Vic.: Grattan Institute.
- Durham, P. (2019). "Enrolment scheme extended to Indigenous patients over 50". *Medical Republic*. http://medicalrepublic.com.au/enrolment-scheme-extended-to-indigenous-patients-over-50/24606.
- Ekman, B. (2004). "Community-based health insurance in low-income countries: a systematic review of the evidence". *Pub Med.gov* 19.5, pp. 249–70. doi:%2010.1093/heapol/czh031.
- Fiebig et al (2021). Fiebig, D. G., Gool, K. van, Hall, J. and Mu, C. "Health care use in response to health shocks: Does socio-economic status matter?" *Health Economics (United Kingdom)* 30.12, pp. 3032–3050. ISSN: 10991050. DOI: 10.1002/hec.4427.

Fox et al (2019). Fox, H., M, S., Topp, E. C. and Lindsay, D. "A review of the impact of financing mechanisms on maternal health care in Australia". *BMC Public Health* 1540. https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-019-7850-6.

Freed, G. L. and Allen, A. R. (2017). "Variation in outpatient consultant physician fees in Australia by specialty and state and territory". *Medical journal of Australia* 206.4, pp. 176–180.

- Government of South Australia (2022). *Specialist Outpatient Waiting Time Report.* https://www.sahealth.sa.gov.au/wps/wcm/connect/public+cont ent/sa+health+internet/about+us/our+performance/specialist+outpati ent+waiting+time+report/specialist+outpatient+waiting+time+report.
- Government of Western Australia (2018). *Referrals to public outpatient surgical clinics reporting*. https://ww2.health.wa.gov.au/Reports-andpublications/Referrals-to-public-outpatient-surgical-clinics-reporting.
- Hall, J. P. (2013). "The tale of out-of-pocket spending on health care". *The Medical Journal of Australia* 199 (7), pp. 442–443. https://onlinelibrary.wiley.com/doi/pdfdirect/10.5694/mja13.10844.
- Hunt, G. (2021a). Budget boost to Rural Bulk Billing to benefit the bush. Department of Health. https://www.health.gov.au/ministers/the-hon-greg-huntmp/media/budget-boost-to-rural-bulk-billing-to-benefit-the-bush.
- (2021b). Permanent telehealth to strengthen universal Medicare. Department of Health. https://www.health.gov.au/ministers/the-hon-greg-huntmp/media/permanent-telehealth-to-strengthen-universal-medicare.
- Hutchens, G. (2021). Want to know how much a job pays? Here's the income for hundreds of Australian occupations. https://www.abc.net.au/news/2021-06-13/income-averages-fordifferent-occupations-jobs/100209972.
- Hynd et al (2008). Hynd, A., Roughead, E. E., Preen, D. B., Glover, J., Bulsara, M. and Semmens, J. "The impact of co-payment increases on dispensings of government-subsidised medicines in Australia". *Pharmacoepidemiology and drug safety* 17.11, pp. 1091–1099.
- IHPA (2021). *National Efficient Price Determination 2021–22*. Independent Hospital Pricing Authority. https://www.ihpa.gov.au/sites/default/files/p ublications/national\_efficient\_price\_determination\_2021-22\_0.pdf.

Islam et al (2014). Islam, M. M., Yen, L., Valderas, J. M. and McRae, I. S. "Out-of-pocket expenditure by Australian seniors with chronic disease: the effect of specific diseases and morbidity clusters". *BMC Public Health* 1008. https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-

2458-14-1008.

- Jalali et al (2021). Jalali, F., Bikineh, P. and Delavari, S. "Strategies for reducing out of pocket payments in the health system: a scoping review". *PubMed.gov* 19.1, p. 47. https://pubmed.ncbi.nlm.nih.gov/34348717/.
- Job et al (2021). Job, J., Donald, M., Borg, S. J., Nicholson, C., Chaffey, J., O'Hara, K., Fagermo, N. and Jackson, C. L. "Feasibility of an asynchronous general practitioner-to-general physician eConsultant outpatient substitution program: A Queensland pilot study". *Australian Journal of General Practice* 50 (11), pp. 1095–1111. https://www1.racgp.org.au/ajgp/2021/november/econsultantoutpatient-substitution-program.
- Johar et al (2017). Johar, M., Mu, C., Gool, K. V. and Wong, C. Y. "Bleeding Hearts, Profiteers, or Both: Specialist Physician Fees in an Unregulated Market". *Journal of Health Economics* 26.4, pp. 528–535. https://pubmed.ncbi.nlm.nih.gov/26913491/.
- Kemp et al (2011). Kemp, A., Preen, D. B., Glover, J., Semmens, J. and Roughead, E. E. "How much do we spend on prescription medicines? Out-of-pocket costs for patients in Australia and other OECD countries". *CSIRO Publishing* 35, pp. 341–349. https://www.publish.csiro.au/ah/pdf/AH10906.
- Kemp et al (2013). Kemp, A., Preen, D., Glover, J., Semmens, J. and Roughead, E. "Impact of cost of medicines for chronic conditions on low income households in Australia". *The Journal of Health Services Research Policy* 18 (1), pp. 21–27. https://pubmed.ncbi.nlm.nih.gov/23393038/.

Kessler et al (2021). Kessler, S. et al. "Economic and utilization outcomes of medication management at a large Medicaid plan with disease management pharmacists using a novel artificial intelligence platform from 2018 to 2019: a retrospective observational study using regression methods". *Journal of Managed Care & Specialty Pharmacy* 27.9, pp. 1186–1196. https://doi.org/10.18553/jmcp.2021.21036.

- Kiil, A. and Houlberg, K. (2014). "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* 15.8, pp. 813–828. http://dx.doi.org/10.1007/s10198-013-0526-8.
- Koper et al (2012). Koper, D., Kamenski, G., Flamm, M., Böhmdorfer, B. and Sönnichsen, A. "Frequency of medication errors in primary care patients with polypharmacy". *Family Practice* 30 (3), pp. 313–319. https://doi.org/10.1093/fampra/cms070.
- Kyte et al (2015). Kyte, D., M, M. C., Wees, P. van der, R ten Hove, S. T. and Hill, J. "An introduction to patient-reported outcome measures (PROMs) in physiotherapy". *Physiotherapy* 101 (2), pp. 119–125. https://pubmed.ncbi.nlm.nih.gov/25620440/.
- Laba et al (2019). Laba, T.-L. et al. "Cost-Related Underuse of Medicines for Asthma-Opportunities for Improving Adherence". *The Journal of Allergy and Clinical Immunology* 7.7, pp. 2298–2306. https://pubmed.ncbi.nlm.nih.gov/30928659/.
- Mahlknecht et al (2021). Mahlknecht, A. et al. "Expert-based medication reviews to reduce polypharmacy in older patients in primary care: a northern-Italian cluster-randomised controlled trial". *BMC Geriatrics* 21.659. https://doi.org/10.1186/s12877-021-02612-0.
- McGovern et al (2017). McGovern, C. M., Redmond, M., Arcoleo, K. and Stukus, D. R. "A missed primary care appointment correlates with a subsequent emergency department visit among children with asthma". *Journal of Asthma* 54.9, pp. 977–982.

- McLachlan et al (2013). McLachlan, R., Gilfillan, G. and Gordon, J. *Deep and Persistent Disadvantage in Australia*. Productivity Commission. https://www.pc.gov.au/research/supporting/deep-persistentdisadvantage/deep-persistent-disadvantage.pdf.
- McRae et al (2013). McRae, I., Yen, L., Jeon, Y., Herath, P. and Essue, B. "Multimorbidity is associated with higher out-of-pocket spending: a study of older Australians with multiple chronic conditions". *Australian Journal of Primary Health* 19.2, pp. 144–9. https://pubmed.ncbi.nlm.nih.gov/22950881/.
- Medical Board (2022). *Registration data*. Australian Health Practitioner Regulation Agency. https://www.medicalboard.gov.au/news/statistics.aspx.
- Mehrotra et al (2018). Mehrotra, A., Schleifer, D., Shefrin, A. and Ducas, A. M. Defining the Goals of Health Care Price Transparency: Not Just Shopping Around. NEJM Catalyst. https://catalyst.nejm.org/doi/full/10.1056/CAT.18.0146.
- MonashHealth (2019). Rapid Literature Review: Best practice for managing outpatient bookings. https://monashhealth.org/wpcontent/uploads/2019/01/Scheduling\_RapidReview-29102018final.pdf.
- Morgan, S. G. and Lee, A. (2017). "Cost-related non-adherence to prescribed medicines among older adults: a cross-sectional analysis of a survey in 11 developed countries". *BMJ open* 7.1, e014287.
- Newhouse, J. P. and Health Insurance Experiment Group, the (1993). *Free for all? Lessons from the RAND health insurance experiment.* Cambridge, Massachusetts: Harvard University Press.
- Nuti et al (2012). Nuti, L. A., Lawley, M., Turkcan, A., Tian, Z., Zhang, L., Chang, K., Willis, D. R. and Sands, L. P. "No-shows to primary care appointments: subsequent acute care utilization among diabetic patients". *BMC health services research* 12.1, p. 304.
- Nyman, J. A. (2004). "Is 'moral hazard' inefficient? The policy implications of a new theory". *Health Affairs (Millwood)* 23.3, pp. 194–199. doi:%2010.1377/hlthaff.23.5.194.

OECD (2020). OECD health statistics 2021. Organisation for Economic Co-operation and Development. https://www.oecd.org/health/health-data.htm.

- Page et al (2019). Page, A., Falster, M., Litchfield, M., Pearson, S. and Etherton-Beer, C. "Polypharmacy among older Australians, 2006-2017: a population-based study". *The Medical Journal of Australia* 211 (2), pp. 71–75. https://pubmed.ncbi.nlm.nih.gov/31219179/.
- Parker, T. (2017). "The DataLab of the Australian Bureau of Statistics". *Australian Economic Review*. https://onlinelibrary.wiley.com/doi/full/10.1111/1467-8462.12246.

Pharmaceuticals Benefits Advisory Committee (2018a). *August 2018 PBAC Outcomes – Other Matters*. https://www.pbs.gov.au/industry/listing/elements/pbac-meetings/pbac-

outcomes/2018-08/Outcome-Statement-August-2018-Increased-MDQ.pdf.

(2018b). Attachement: Increased Dispensing Quantities – List of Medicines. https://www.pbs.gov.au/industry/listing/elements/pbacmeetings/pbac-outcomes/2018-08/Increased-Dispensing-Quantity-List-of-Medicines-8-April-2019.pdf.

Pulok et al (2020). Pulok, M. H., Gool, K. V. and Hall, J. "Inequity in physician visits: the case of the unregulated fee market in Australia". *Social Science Medicine* 255, p. 113004. https://pubmed.ncbi.nlm.nih.gov/32371271/.

Queensland Health (2021). Queensland Reporting Hospitals: Specialist outpatient. http://www.performance.health.qld.gov.au/Hospital/Special istOutpatient/99999.

Robertson et al (2016). Robertson, J., Newby, D. A. and Walkom, E. J. "Health Care Spending: Changes in the Perceptions of the Australian Public". *PLoS ONE* 11.6, e0157312. https: //journals.plos.org/plosone/article?id=10.1371/journal.pone.0157312.

- Savage, E. and Van Gool, K. (2009). *Extended Medicare Safety Net: Review Report 2009*. Department of Health. https://www1.health.gov.au/internet/main/publishing.nsf/Content/Rev iew\_%5C%20Extended\_Medicare\_Safety\_Net.
- Schoen et al (2013). Schoen, C., Osborn, R., Squires, D. and Doty, M. "Access, affordability, and insurance complexity are often worse in the United States compared to ten other countries". *Health Affairs (Millwood)* 32, pp. 2205–2215.
- Scott, A. (2021). *The evolution of the medical workforce*. ANZ-Melbourne Institute. https://melbourneinstitute.unimelb.edu.au/\_\_data/assets/pd f\_file/0011/3809963/ANZ-Health-Sector-Report-2021.pdf.
- Seaman et al (2021). Seaman, K. L., Bulsara, M. K., Sanfilippo, F. M., Kemp-Casey, A., Roughead, E. E., Bulsara, C., Watts, G. F. and Preen, D. B. "Exploring the association between stroke and acute myocardial infarction and statins adherence following a medicines co-payment increase". *Research in Social and Administrative Pharmacy*.
- Services Australia (2022). *Concession and health care cards*. https://www.servicesaustralia.gov.au/concession-and-health-carecards?context=60091.
- Sinnott et al (2013). Sinnott, S., Buckley, C., O'Riordan, D., Bradley, C. and Whelton, H. "The Effect of Copayments for Prescriptions on Adherence to Prescription Medicines in Publicly Insured Populations; A Systematic Review and Meta-Analysis". *PLoS One* 8 (5), e64914. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3665806/.
- Sirois et al (2021). Sirois, C. et al. "Exploring polypharmacy with artificial intelligence: data analysis protocol". *BMC Medical Informatics and Decision Making* 21.219, pp. 1–8. https://doi.org/10.1186/s12911-021-01583-x.

- Snoswell et al (2020). Snoswell, C., Taylor, M., Comans, T., Smith, A., Gray, L. and Caffery, L. "Determining if Telehealth Can Reduce Health System Costs: Scoping Review". *Australian Journal of Primary Health* 22 (10), e17298. https://www.jmir.org/2020/10/e17298.
- Stauder, J. (2019). "Unemployment, unemployment duration, and health: selection or causation?" *Eur J Health Econ* 20, pp. 59–73. https://doi.org/10.1007/s10198-018-0982-2.
- Swannell, C. (2021). "Most aged care residents miss out on medication reviews". *The Medical Journal of Australia*. https://www.mja.com.au/journal/2021/most-aged-care-residentsmiss-out-medication-reviews.
- Swerissen et al (2016). Swerissen, H., Duckett, S. and Wright, J. *Chronic failure in primary care*. Report No. 2016-2. Grattan Institute. https://grattan.edu.au/report/chronic-failure-in-primary-care/.
- Swerissen et al (2018). Swerissen, H., Duckett, S. and Moran, G. *Mapping primary care in Australia*. Melbourne, Vic.: Grattan Institute.
- Tasmanian Government (2022). *Estimated Outpatient Appointment Waiting Times*. http://outpatients.tas.gov.au/clinicians/wait\_times.
- Treasury (2021). 2021 Intergenerational Report. The Treasury. https://treasury.gov.au/publication/2021-intergenerational-report.
- Trivedi, A. N. and Kelaher, M. (2020). "Copayment Incentive Increased Medication Use And Reduced Spending Among Indigenous Australians After 2010". *Health Affairs* 39.2. https://doi.org/10.1377/hlthaff.2019.01089.
- Van Gool et al (2009). Van Gool, K., Savage, E., Viney, R., Haas, M. and Anderson, R. "Who's getting caught? An analysis of the Australian medicare safety net". *Australian Economic Review* 42.2, pp. 143–154. ISSN: 00049018. DOI: 10.1111/j.1467-8462.2009.00533.x.

- Van Gool et al (2011). Van Gool, K., Savage, E., Johar, M., Knox, S., Jones, G. and Viney, R. *Extended Medicare Safety Net: Review of Capping Arrangements Report 2011*. Department of Health. https://www1.health.gov.au/internet/main/publishing.nsf/Content /2011\_Review\_Extended\_Medicare\_Safety\_Net.
- Victorian Agency for Health Information (2021). Victorian Health Services Performance: Specialist clinics. https://vahi.vic.gov.au/reports/victorian-health-servicesperformance/specialist-clinics.
- Whaley, C. (2018). "The Association Between Provider Price and Complication Rates for Outpatient Surgical Services". *Journal of General Internal Medicine* 33 (8), pp. 1352–1358. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6082222/.
- WHO (2022). Anatomical Therapeutic Chemical (ATC) Classification. World Health Organisation. https://www.who.int/tools/atc-ddd-toolkit/atc-classification.
- Yusuf, F. and Leeder, S. (2013). "Can't escape it: the out-of-pocket cost of health care in Australia". *Medical Journal of Australia* 199, pp. 475–478. https://www.mja.com.au/system/files/issues/199\_07\_ 071013/yus11638\_fm.pdf.
- (2019). "Recent estimates of the out-of-pocket expenditure on health care in Australia". *Australian Health Review* 44.3, pp. 340–346. https://www.publish.csiro.au/ah/fulltext/AH18191.
- Zhang et al (2020). Zhang, A., Prang, K.-H., Devlina, N., Scott, A. and Kelahera, M. "The impact of price transparency on consumers and providers: A scoping review". *Health Policy* 124.8, pp. 819–825. https: //www.sciencedirect.com/science/article/abs/pii/S0168851020301433.