

DISCUSSION PAPER SERIES

IZA DP No. 16844

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Out-of-Pocket Costs: The Experience from
Australian Cancer Patients**

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ISSN: 2365-9793

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ABSTRACT

Medicare Austerity Reforms and Patient Out-of-Pocket Costs: The Experience from Australian Cancer Patients

In this paper, we examine trends in provider fees charged, government expenditure on private out-of-hospital medical services, and out of pocket costs following policy changes intended to reduce government expenditure. We examine the experience of a high-need patient group: people diagnosed with cancer. The Australian system for these services is predominantly publicly funded under fee for service; with no government control on the fees charged by providers. We calculate out of pocket costs for patients in the 12 months following on cancer diagnosis and find a large variation in these costs according to the type of treatment received as well as the place of residence and presence of additional government protection. We find that volumes of services, provider fees, and out of pocket costs rose over time. These findings are especially important for a high-need patient group as out of pocket costs are considered a barrier to access to health care. Governments may respond to the long-term fiscal challenges due to the COVID-19 pandemic by attempting to constrain benefits it pays; our results demonstrate that careful consideration of the full impact of such policies is needed.

JEL Classification: I13, I14, I11

Keywords: out of pocket costs, cancer, public health insurance

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I. Introduction

In times of austerity, governments' attempts to reduce expenditure often encompass health care. One strategy is to freeze the level of benefits paid under government funded insurance. This could simply hold expenditure constant while costs rise, but only if there is no change in the behaviour of providers and patients. The Australian health system offers an interesting case study as rising expenditure has led to several policy changes designed to reduce growth, which has consistently exceeded GDP growth (Treasury, 2021). A key plank of Australia's universal health insurance system is the Medicare Benefits Schedule (MBS), a tax-financed program that covers medical services provided in the out-of-hospital sector as well as medical services to private inpatients. The MBS specifies government-determined benefit but does not regulate the fees charged by providers. For all out-of-hospital claims, covered by the MBS, any gap between provider fee and the Medicare benefit constitutes the patient's contribution – the out-of-pocket (OOP) cost. This creates a distinct possibility that these policies will shift at least some of the cost burden to patients through increased OOP costs, costs which cannot be covered by Australian private health insurance. Shifting costs to patients can increase barriers to access and make health care less affordable – particularly for high needs patients who require care over extended periods of time (Marmot, 2005; AIHW, 2018a).

In this paper we examine trends in provider fees, Medicare benefits and OOP costs over a period in which MBS benefits were held constant (the Medicare freeze), and eligibility for additional safety net cover was reduced (Under the safety net, once patients reach a specified threshold of OOPs, 80% of additional OOPs are met by the government.). We examine the experience of a high-need patient group; people diagnosed with cancer in Australia. Focusing on high-need patients allows us to examine the cumulative burden of OOP costs over a period of time that incorporates various phases of treatment. In doing so, we focus on a patient group that is likely to be affected by the cumulative impact of policy changes. This focus is more instructive than looking at overall population averages because we know that the burden of OOP costs falls on a relatively small proportion of the population. (AIHW, 2018b)

We concentrate our analysis on out-of-hospital services funded by the MBS. This is because patient OOP contributions are a significant aspect of the overall funding streams for out-of-hospital medical services. Furthermore, the various policy changes have impacted the out-of-hospital sector.

A recent systematic review (Iragorri et al 2021) on the OOP cost burden of patients diagnosed with cancer found that adult US patients spent between USD 180 and USD 2600 per month, while the cost was USD 15–400, USD 4–609, and USD 58–438 in Canada, Western Europe, and Australia respectively. In high income countries, cancer patients and their caregivers spent, on average, around 16% of their annual income on out-of-pocket expenses related to treatment. (Iragorri et al 2021)

In Australia, several recent studies have looked at the cost of cancer care, including the burden that falls on patients. In the state of Western Australia, Slavova-Azmanova et al (2018) used a patient questionnaire to show that patients diagnosed with cancer faced costs of \$2179, with 11% of the sample spending more than 10% of their household income on these expenses. Those with private health insurance, aged less than 65 years, and had higher incomes faced higher OOP costs.

This paper builds on previous contributions in several important ways. First, we examine the distribution of OOP costs within a high-need population and how these have changed over time. Second, we utilise a rich dataset that links socio-economic, geographic, demographic and cancer-related registry data with administrative claims records that provide an accurate picture on the fees charged, the benefits paid and the OOP costs burden faced by patients. Third, in the context of a health system where there have been substantive reforms that affect the benefits paid, we will provide unique insights on the impact these policies have had in the cost burden on high-need patients and the association with government protection, private health insurance and place of residence.

Since 1984, the MBS has been a fundamental component of Australia's health care funding arrangements. The MBS subsidises the cost of medical services that are provided out of hospital (e.g. doctors' consulting rooms) as well as in-hospital medical services provided to private patients. It covers consultations with general practitioners (GPs), psychiatrists, certain allied health professionals and other specialist medical practitioners, as well as pathology, diagnostic and therapeutic services.

The MBS is composed of over 5700 different medical services. The government assigns each service an MBS item number and an MBS Fee. Patients are entitled to claim a fixed rebate that is determined by the MBS Fee. Ordinarily, MBS Fees are increased each year according to a combination of indices relating to wage levels and price levels.

Importantly, medical providers are not bound by the MBS Fee and are free to set their own fees. For out-of-hospital MBS claims, patients pay the gap between the provider's fee and the Medicare rebate.

The Australian Government's concession card program provides additional protection from OOP costs (Jones et al, 2008). Around 1 in 4 Australians qualify for a concession card. Eligibility is based on receipt of government payments such as the aged-pension or low incomes. Concession cardholders are entitled to additional benefits including reduced co-payments for PBS-listed medications and an additional Medicare payment to encourage general practitioners (GPs) to reduce the patient's co-payment to zero. Whilst this is not an official entitlement, concession card status is frequently used by providers as a signal to reduce their fees and thereby lower OOP costs (Johar et al, 2017).

Since 2004, the Extended Medicare Safety Net (EMSN) has complemented MBS arrangements for those who have incurred high OOP costs in out of hospital services. All Australians are eligible, but they only qualify for EMSN benefits when they have reached a threshold in OOP costs within a calendar year. When the threshold is reached, the EMSN provides patients with additional benefits to reduce further OOP costs for the remainder of the calendar year.

The introduction of EMSN in 2004 had some unintended consequences including an inflationary effect which led to a growth rate in spending of around 20% (van Gool et al 2011 for a thorough review). This together with the general growth in Medicare spending led the government at the time to introduce new measures to curb spending. Among these measures, two policy changes have been implemented in recent years that potentially affect OOP costs for out-of-hospital services. First, an MBS rebate freeze was introduced that stopped the indexing of the MBS rebates (The indexing of Medicare benefit schedule fees raises the benefits according to wage cost index developed by Australian department of Finance. (Dickinson, 2019).). The freeze commenced in July 2014 and was initially intended to last for

four years but was extended in 2016 to 2020. (Dickinson, 2019). This means that any increase in provider fees have to be met by patients through higher OOP costs.

The second policy change affects the EMSN threshold amount and was implemented on January 1st 2015. At that time, the EMSN threshold for the general population increased to \$2000 (up from around \$1250 in 2014), whereas the lower threshold (for concession card holders) remained unchanged (aside from the routine annual consumer price index increases). This meant that patients who were eligible for the higher threshold had to incur a further \$750 in OOP costs before they qualified for the EMSN (Yu et al 2019).

Over an episode of care, patient OOP costs are driven by the gap between provider fees and Medicare benefits paid as well as the volume of services where such gaps exist. As a result, high need patients such as those diagnosed with cancer who require treatment over extended periods of time are particularly vulnerable to any factors, including policy changes, that affect fees charged by providers and the benefits paid by Medicare.

II. Materials and methods

We use the Sax Institute's 45 and Up Study which consists of 267,357 residents living in NSW at recruitment, Australia. These individuals were randomly sampled from the Services Australia Medicare enrolment database and completed the baseline survey over the 2005-2009 and the study is still ongoing (Bleicher et.al (2022)). Approximately 19% of those invited to participate, completed the baseline survey. In addition, the participants signed consent for follow-up and linkage of their information to health and other databases Those in rural and remote areas and those over the age of 80 were oversampled. For a full description of 45 and Up Study please refer to Bleicher et.al (2022). The study sample equates to approximately 11% of the population aged 45 and over. The study provides a rich picture on patient demographics, socioeconomic status and health status (Bleicher et.al (2022) and Mealing et. al (2010)). Importantly, the 45 and Up Study links a range of administrative claims datasets including the Medicare claims (MBS) which provides the gold standard when it comes to accurate data on out-of-hospital service use, fees, Medicare rebates and patient OOP costs. Medicare claims data was provided by Services Australia and the linkage with 45 and Up Study is done by Sax Institute using deterministic matching.

The 45 and Up Study is also linked by the Centre for Health Record Linkage (CHeReL) to the NSW Cancer Registry using a probabilistic procedure to link records (www.cherel.org.au). Its current estimated false positive rate is 5/1,000. This allows us to identify those study participants diagnosed with cancer. At the time of this project, this data is available to us for any diagnosis that occurred up to end of 2015. As the cancer registry data was sparse prior to 2011, we identified patients who had a cancer diagnosis between 2011 and 2015. For each individual with a cancer diagnosis, we observe a period of one year from the date of diagnosis. For instance, if someone was diagnosed with a cancer in October 15, 2015, we include that individual's Medicare claims data for out-of-hospital claims from October 15, 2015 to October 14, 2016. As such, our sample includes 13574 individuals.

Out-of-hospital claims include GP and specialist consultations, imaging, pathology, radiation oncology, chemotherapy, and some allied health consultations. Medicare claims data for these claims includes the provider fees, out of pocket costs and Medicare benefits and service counts. These have been aggregated as a sum of all Medicare services over a 12-months period. The dollar figures are indexed to the first quarter of 2016.

Our initial analysis provides descriptive trends over time for patients diagnosed with cancer between 2011 and 2015. We present trends in fees charged by providers for out-of-hospital services in the 12 months following on from diagnosis as well as the benefits paid by Medicare. The OOP costs for the year are calculated by subtracting the benefits from the fees paid. There is no private health insurance coverage available in Australia for out-of-hospital services that are covered by the MBS. We also investigate the distribution of OOP costs among cancer patients to examine whether there is a high level of concentration of costs among some patients.

Using a linear multivariate estimation model for two groups of individuals with concession cards, and those without, we investigate out of pocket costs, number of services, provider charges, or Medicare benefits for an individual who was diagnosed with cancer in each year. We investigate the role of observed individual specific characteristics consisting of: whether an individual has private health insurance; if the person's age is above 65; and if they reside outside of a metro area, and an indicator for socioeconomic quantile of their residence (SEIFA)¹. Moreover, we study the impact certain treatments such as chemotherapy or radiation oncology. We have included radiation oncology as these treatments are associated with high out of pocket costs (van Gool, et. al 2023). Furthermore, controls for stages of cancer diagnosis, and clinical cancer groups are included. The changes in EMSN threshold explained previously happened from January 1st 2015 for non-concession card holders only, as a result we estimate the results for those with concession cards and those without. For review of the correspondence of variables in this paper and original variables in the 45 and Up Study please refer to Appendix B.

The units of observation are aggregates over a one-year period following the diagnosis of cancer. The fees charged is an amalgam of the fees charged per claim as well as the volume of claims over the one-year period after diagnosis. The Medicare benefits paid reflects the benefits per claim and the volume of claims. Here the benefits reflect the Medicare Benefits Schedule (MBS) rebate for each item as well as the EMSN benefit. The total number of services used over a one-year period aggregates all MBS services used by a patient.

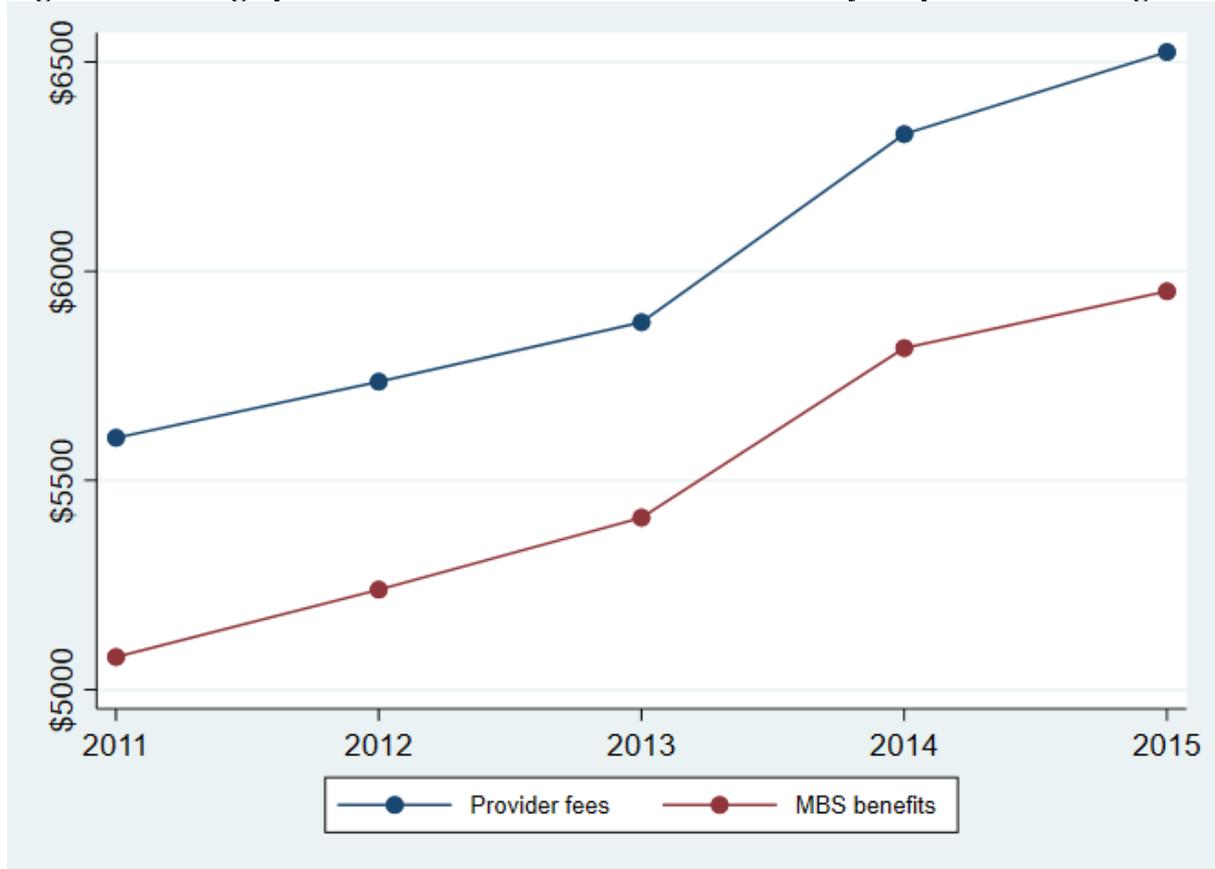
III. Results

Descriptive results

Figure 1 shows the fees charged and Medicare benefits paid per patient in the 12-months following their cancer diagnosis. Provider fees increased steadily from \$5601 in 2011 to \$6524 in 2015 (blue line in figure 1). Medicare benefits increased from \$5078 in 2011 to \$5952 in 2015 (red line in figure 1). The gap between provider fees and Medicare benefits represents the average annual OOP costs incurred by patients for their out-of-hospital medical treatments.

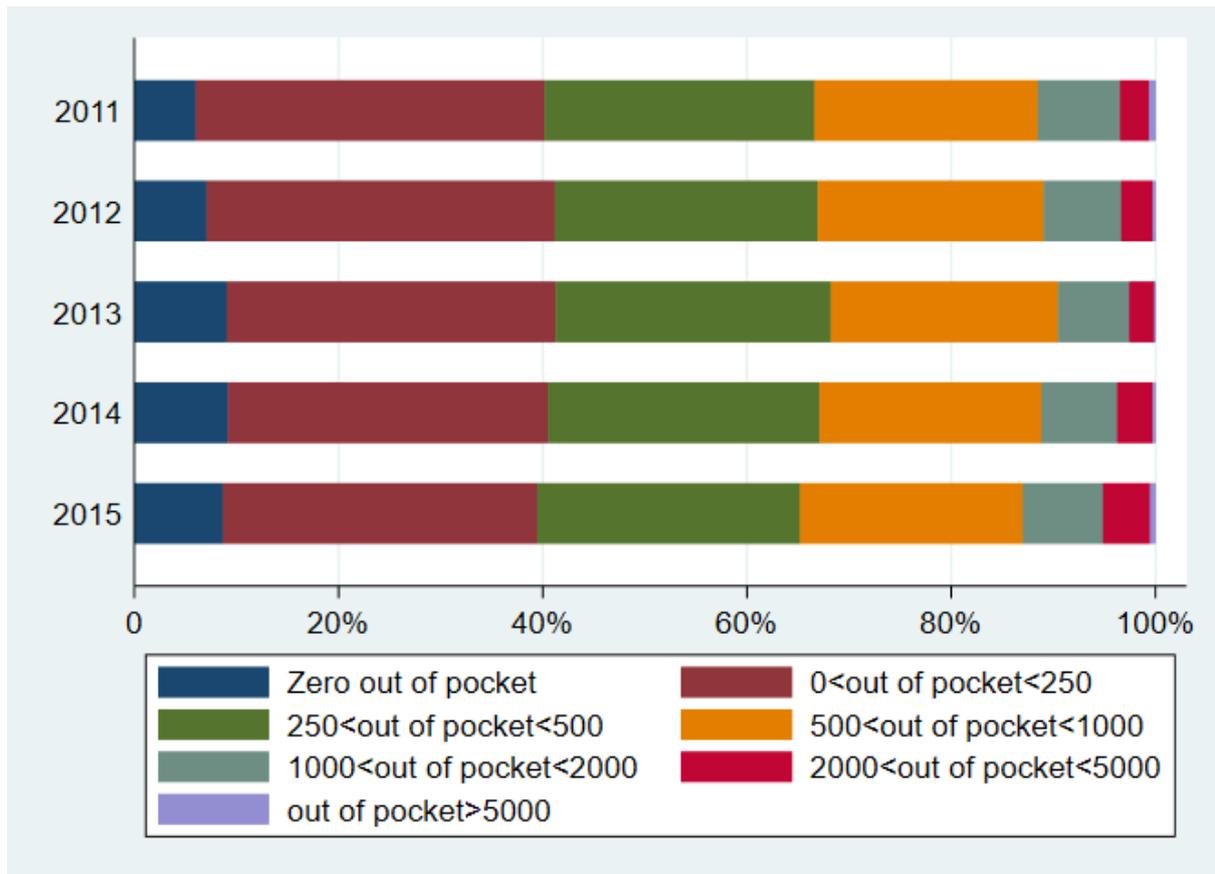
¹ For the latest 45 and Up Study Data Book and Data Dictionary: <https://www.saxinstitute.org.au/our-work/45-up-study/data-book/>

Figure 1: Average provider fees and Medicare benefits one-year post cancer diagnosis



Previous research suggests that OOP costs are unevenly distributed across the population (Jones et al 2008). Figure 2 presents the distribution of annual OOP costs incurred for out-of-hospital services by year of cancer diagnosis. In 2011 around 6% of the population group incurred no OOP costs and only 0.6% of the cohort incurred OOP costs greater than \$5000 (blue color in figure 2). The distribution remains steady over time although there are some trends starting to emerge. First, a fairly steady 40% of each year's cohort incur a very modest OOP amount of less than \$250 per year (maroon and blue colors in figure 2). However, an increasing proportion of the population is experiencing very high OOP costs particularly since 2013. In 2013, 2.55% of the population incurred OOP costs greater than \$2000 per year and by 2015 this figure had increased to 5.13% of the population (red and purple colors in figure 2).

Figure 2: Distribution of OOP costs over an episode of care by year



Regression results

Table 1 presents the regression results for four outcomes of interest: fees charged, Medicare benefits paid, number of MBS services, and patient OOP costs incurred for our two population groups of interest: concession card holders and the general population

The results show that the year of diagnosis had little effect on the benefits paid, the fees charged and the number of claims made for the general population (columns 5, 6, 7, and 8 in table 1). OOP costs for this group rose significantly for those diagnosed in 2015 (column 5, table 1), reflecting a fall in the benefits paid. For concession card holders, OOP costs did not change according to year of diagnosis (column 1, table 1) although the number of claims did increase in some years which then led to a commensurate increase in fees and benefits (columns 3 and 4, table 1).

Over time, those who receive radiation oncology patients have witnessed significant financial changes. Compared to those diagnosed in 2011, patients diagnosed in 2012, 2013 and 2014 saw a decline in average OOP costs in both the general and concession card population (rows 5-7, columns 1 and 5 in table 1). For both concessional and the general population groups, the models indicates that the fall in OOP costs is because the growth in benefits paid (column 6, table 1) was greater than fees charged by providers (column 7, table 1) – noting that not all results are statistically significant. For those diagnosed in 2015, however, the results for concessional patients and the general population diverge. For concessional card holders diagnosed in 2015, fees, claims and benefits increased substantially but OOP costs continued

to fall because benefits rose by more than fees. For the general population, however, the rise in fees was only partially offset by a rise in benefits which meant that OOP costs rose by \$208 (row 8, column 5, table 1).

Having PHI membership significantly increases the fees charged, number of claims made, the Medicare benefits paid and higher OOP costs compared to those without PHI for both concession card holders and the general population (table A1, annex). The socioeconomic area of the patient's residence is associated with higher OOP costs and fees for those living in relatively economically advantaged areas (table A1, annex). Additionally, an important socioeconomic determinant of fees, benefits and OOP costs is concessional card status. Having such a card, increases the fees charged by providers, as well as the number of services, but increases the Medicare benefits by a greater amount. Higher fees are the result of a higher volume of claims – rather than the price charged per claim. With the increase in benefits exceeding the fees charged, OOP costs are lower for those with a concession card (table A1, annex).

The costs of chemotherapy infusion (not the chemotherapy drugs which are out of scope for this paper) adds \$2709 and \$3025 in fees charged for card holders and the general population, respectively. From the patient's perspective, the MBS-related costs for chemotherapy remained stable over the period between 2011 and 2015 (table A1 in the annex).

Table 1: Regression results

VARIABLES	Concessional				General population			
	(1) OOP	(2) Benefits	(3) Fees	(4) Counts	(5) OOP	(6) Benefits	(7) Fees	(8) Counts
2012	0.961 (7.656)	45.022 (82.904)	45.983 (82.806)	-0.033 (1.093)	-5.649 (32.783)	44.889 (146.138)	39.240 (172.470)	0.890 (1.603)
2013	2.359 (9.267)	126.295* (68.531)	128.654* (73.304)	1.798* (1.053)	-11.830 (33.968)	41.216 (179.123)	29.386 (208.022)	1.258 (2.029)
2014	6.472 (12.116)	169.370** (68.884)	175.843** (73.156)	2.861** (1.147)	-5.005 (31.419)	-32.415 (103.674)	-37.420 (124.908)	-0.365 (1.285)
2015	2.443 (9.003)	-61.349 (61.582)	-58.906 (63.240)	0.575 (1.084)	56.363** (23.933)	-76.641 (131.216)	-20.278 (143.885)	1.847 (1.417)
2012*Radio	-195.059*** (60.814)	26.792 (207.721)	-168.268 (230.196)	5.226** (2.239)	-6.311 (116.656)	868.488 (533.482)	862.177 (625.967)	0.787 (2.939)
2013*Radi	-314.936*** (80.030)	226.862 (278.548)	-88.074 (286.061)	4.536** (2.157)	-249.071*** (92.573)	772.752** (301.355)	523.682 (354.341)	1.195 (2.617)
2014*Radi	-272.213*** (69.678)	403.532 (329.736)	131.319 (344.884)	4.349 (2.666)	-128.316* (73.994)	736.172* (380.945)	607.855 (435.533)	4.716 (3.237)
2015*Radi	-181.371** (78.154)	1,226.990*** (283.376)	1,045.619*** (268.147)	9.447*** (2.571)	207.697* (109.600)	1,542.386*** (423.215)	1,750.083*** (519.541)	4.209 (3.012)
Radio	560.203*** (55.149)	7,853.956*** (1,354.158)	8,414.159*** (1,380.837)	43.514*** (7.773)	714.111*** (120.061)	7,538.381*** (867.334)	8,252.493*** (972.160)	42.832*** (6.126)
Observations	9,730	9,730	9,730	9,730	3,844	3,844	3,844	3,844
R-squared	0.123	0.610	0.586	0.448	0.178	0.634	0.593	0.570

Robust standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1.

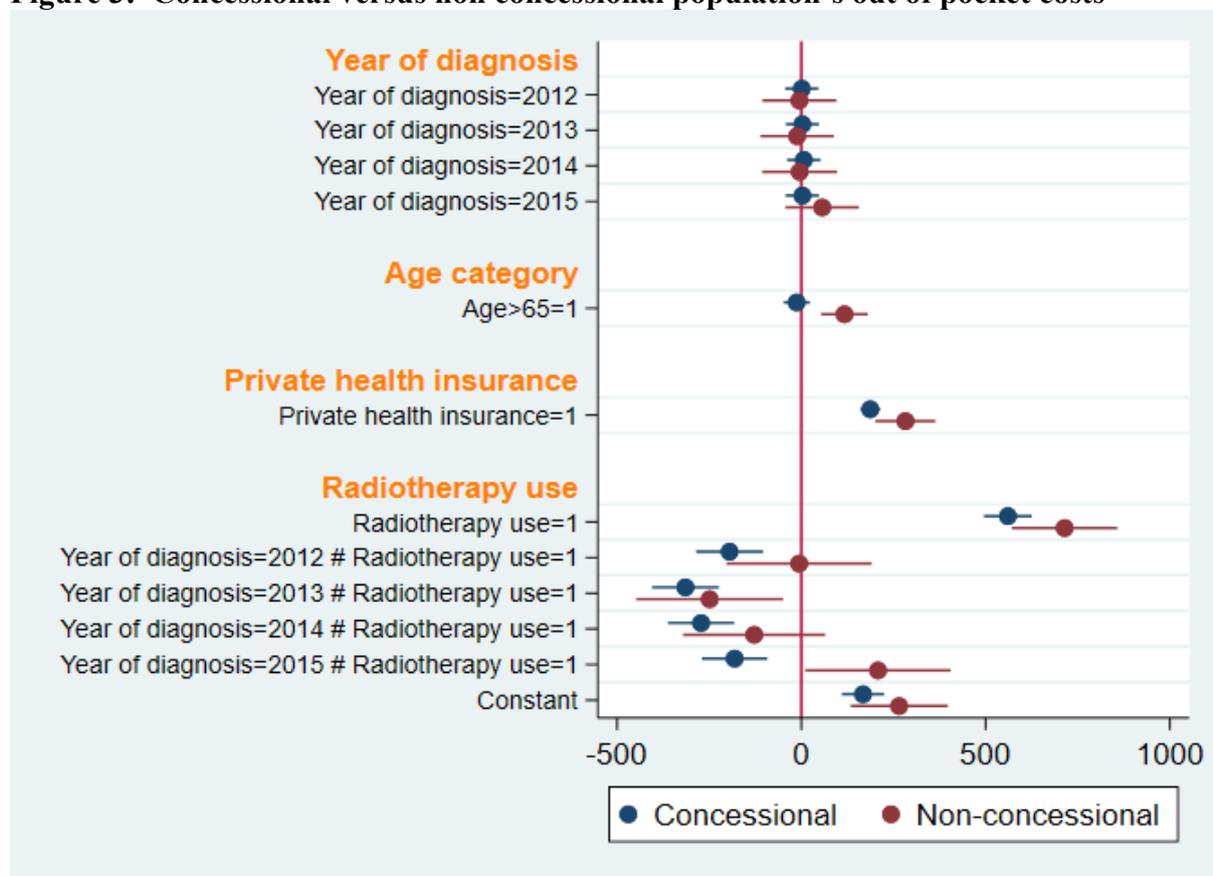
For the complete version of the table including all coefficients for controls please check table A1 in the annex. The table is estimated based on equation 1 using linked data from 45 and Up Study from 2011 to 2015. The dollar amounts are estimated based on quarter one of 2016. Standard errors are clustered at cancer type level.

To explore the role of concession card status further, we present the differences in OOP costs between card holders and the general population in Figure 3. Holding all factors constant, this figure shows that having a concession card provides protection from high OOP costs consistently between 2011 and 2014. In 2015, OOP cost for the general population increased significantly but concession card holders were protected from this increase.

For many of the other variables, OOP costs move in the same direction for the general population and the concession card population but in most instances OOP costs are lower for the latter group. For example, having private health insurance increases OOP by around \$282 for the general population and by only \$188 for the concession card group (figure 3). Similar trends can be observed for factors such as being older than 65 and using radiotherapy services (figure 3).

The differences in OOP costs between the general population and concession card holders is due to a number of factors. In general, concession card holders receive higher MBS benefits than the general population which reflects not only the additional entitlements but also the higher volume of claims made by card holders. In other instances, it is clear that concession card holders are charged less for the services they use. For example, fees charged for chemotherapy-related treatments are \$300 less for concession card holders compared to the general population (table A1, annex). Over time, concession card status is a more important determinant of OOP costs. The concession card provided additional OOP cost protection for those diagnosed in 2015 including those patients who used radiotherapy services.

Figure 3: Concessional versus non concessional population’s out of pocket costs



IV. Discussion

This paper has examined the impact of OOP costs for patients in the 12 months following a cancer diagnosis. On average, the results show that such patients incur around \$514 in OOP cost for out-of-hospital services funded through the MBS, but these costs are highly skewed.

Over 40% of patients face less than \$250 in OOP costs per year, regardless of the year that they were diagnosed. However, the percentage of patients facing \$2000 or more in OOP costs has increased slightly since 2013.

Patients who are privately insured face higher OOP costs. The higher Medicare benefits claimed by PHI patients can be explained by a (i) higher volume of services; (ii) more services with higher MBS Fees; and/or (iii) greater likelihood of qualifying for EMSN benefits (which are included in the MBS benefits estimated). As noted, PHI does not contribute to the expenses of any claims made under the MBS for out-of-hospital services and therefore membership cannot have a direct effect on fees, benefits and OOP costs. However, patients who choose to insure may exert preferences for the type of care they want. For example, those with PHI may be more inclined to rely on specialists' care compared to those without PHI. It is also plausible that providers charge higher fees to patients who are privately insured (Johar et al 2017).

The results of our analysis do not provide straight forward answers to the question of whether the Medicare freeze and the EMSN threshold reforms have impacted OOP costs. Although there are clear indications that OOP costs have increased following the policy reforms, the pathway by which these changes occurred suggest that other factors may be at play. For example, in the case of the Medicare freeze, we would have anticipated that if OOP costs increased this would have arisen from a growing gap between rising fees and a flat (i.e no changes) in Medicare benefits. Instead, we find that both fees and benefits grew over that time – but fees outgrew benefits to result in an increase in OOP costs especially for the general population. This does not rule out the possibility that the freeze contributed to the rise in OOP costs in 2015 but also suggests that there was a change in the volume of services claimed, a change in the mix of services and/or higher fees. Furthermore, although the Medicare freeze affected the entire population, the increase in OOP costs only appears to have affected the general population and not concession card holders. This result is consistent with the idea that providers are more resistant to increasing fees (and OOP costs) for their concession card patients than their general population patients.

In the case of the EMSN threshold change, we would have anticipated that OOP costs for some general patients may have increased and that this would have shown up in our analysis through lower Medicare benefits for those diagnosed in 2015. Consistent with this expectation, the results show that OOP costs for the general population did indeed increase but did not change for concession card holders. However, the pathway by which this result came was through an increase in fees that were not completely offset by an increase in benefits. It is possible that the results by Yu et al (2019) can help to explain this phenomenon. That is, Yu (2019) showed that in response to the EMSN threshold change, specialist doctors increased their consultation fees so that general patients reached the new (higher) EMSN threshold. It is plausible that Yu's result was more widespread than just consultation fees and affected other areas such as radiation oncology where the results show a similar pattern – particularly when comparing changes that occurred for those diagnosed in 2015 with those diagnosed in the year prior.

Notwithstanding the limitations of our study (outlined in the Appendix), our analysis offers a number of novel insights into the recent financial trends for patients diagnosed with cancer from which we can draw some key policy lessons. First, Medicare benefits have kept up with fees during the early years of our observation period but there are signs that OOP costs are rising – particularly for the general population. Furthermore, whilst the proportion of the population who experience modest OOP costs has been stable, an increasing proportion of patients incur OOP costs that exceed \$1000. This suggests that, over time, more patients will

qualify for EMSN benefits. Due to the design of Medicare, the Australian Government finds itself in a Catch-22 position. In trying to restrict Medicare benefits through policies like the Medicare freeze, it may increase patient OOP costs. In doing so, more patients will qualify for the EMSN which, in turn, will increase Australian Government expenditure.

V. V. Conclusion

In this paper, we examine trends in provider fees charged, government expenditure on private medical services, and out of pocket costs following policy changes intended to reduce government expenditure by focusing on a high-need patient group: people diagnosed with cancer. We calculate out of pocket costs for patients in the 12 months following on cancer diagnosis and find a large variation in these costs according to the type of treatment received as well as the place of residence and presence of additional government protection. We find that volumes of services, provider fees, and out of pocket costs rose over time despite the austerity measures taken by the government. These findings are especially important for a high-need patient group as out of pocket costs are considered a barrier to access to health care.

An important lesson from our analysis is that OOP costs vary in terms of type of treatments used (chemotherapy versus radiotherapy) as well as the socioeconomic status of the area in which patients reside. Patients might have to choose a different treatment (or no treatment) if the out of pocket for using radiotherapy is prohibitive. Moreover, patients living in wealthier areas face higher OOP costs than those in less wealthy areas. This holds true for both the general and concession card holders, although the degree of variation across socioeconomic areas is less for concession card holders. We know from previous research that OOP costs act as a barrier to care, particularly for specialist care for those on lower incomes (Pulok et al 2020, Fiebig et al, 2021). This is also evident in our analysis which shows that in areas with higher OOP costs, the number of claims is lower. This is an indication that the higher OOP costs are due to higher provider fees (relative to the MBS rebate). Under Australia's system, the government has a limited range of available policy options to curtail OOP costs. Its primary instrument is to increase benefits to try to keep up with provider fees but as we have seen elsewhere, there is a high risk that higher benefits translates to higher provider fees (van Gool, 2011; Savage et al, 2009) which leaves patients no better off and taxpayers worse off.

These issues point to the need for additional policy instruments that will provide greater predictability and rationale for OOP costs as well as greater equity for high need patients such as those diagnosed with cancer. First, policy settings should not just take account of the Australian Government's expenditure growth but also the effect it may have on patients – knowing that any changes to policy that affect Medicare benefits are likely to be concentrated on a relatively small number of high need patients. Second, OOP costs should be viewed on an episodic level rather than on a service-by-service basis. As patients and their families draw on savings, the cumulative impact of OOP costs may place increasing burdens on household financing which may have a deterrent effect on health care use.

There are several lessons here that extend beyond Australia. Expenditure restraint is likely to induce changes in provider behaviour affecting both the volume of services and fees charged, where that is possible. The effects are not even across the population, and policies to protect the vulnerable can be effective. That also means that monitoring effects by tracking averages can be misleading, and it is important to investigate how changes impact different population groups. It is also important to consider how different aspects of the insurance design interact,

in this case, higher OOPs and the EMSN. As governments respond to the long term fiscal challenges due to the COVID-19 pandemic, careful consideration of the full impact of policies is needed.

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