



Supporting Information

Supplementary methods and results

**This appendix was part of the submitted manuscript and has been peer reviewed.
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Appendix to: White V, Gough K, Wood C, et al. Suboptimal experiences with out-of-pocket costs, financial disclosure, and support information among people treated for cancer. *Med J Aust* 2023; doi: 10.5694/mja2.51993.

Table 1. Re-coding of responses for the nine outcome variables

Bills associated with your surgery/chemotherapy/radiotherapy:

Optimal: No, I did not have any bills; Yes, covered by health insurance

Suboptimal: Yes, health insurance covered some costs; Yes I had bills to pay

Excluded: Not sure/cannot remember

For surgery/chemotherapy/radiotherapy: were told about any out-of-pocket costs you might have to pay?

Optimal: I was fully informed

Suboptimal: Yes, I was informed of some costs; No I was not informed

Excluded: Not sure/cannot remember

Did a health professional talk to you about: financial support programs?/financial planner?/help to access superannuation, income protection etc?

Optimal: Yes

Suboptimal: No, but I would have liked to

Excluded: No, but I didn't need them to; Not sure/cannot remember

Table 1. Demographic and clinical characteristics of the 4181 people who returned surveys

Characteristic	Number	Proportion
Sex		
Men	1967	47%
Women	2128	51%
Missing	86	
General health		
Excellent	473	11%
Good	2735	65%
Fair/poor	846	20%
Missing	127	
Age group (years)		
< 60	1171	28%
60–69	1241	30%
70 or more	1584	38%
Missing	185	
Socio-economic status*		
Lowest 40%	1302	31%
Middle 40%	1490	36%
Top 20%	683	16%
Missing	706	
Rurality†		
Metropolitan	2107	50%
Regional	539	13%
Rural	829	20%
Missing	706	
Hospital		
Public	3504	84%
Private	677	16%
Missing	-	
Cancer		
Colorectal	420	10%

Characteristic	Number	Proportion
Breast	787	19%
Prostate	454	11%
Blood	807	19%
Lung	276	7%
Melanoma	222	5%
Other	974	23%
Missing	241	

* Australian Bureau of Statistics Socioeconomic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) deciles , recoded to quintiles.¹

† Modified Monash Model based on Australian Statistical Geography Standard Remoteness Area (2016).²

Table 3. Costs associated with surgery: suboptimal experiences reported by respondents having surgery and answering costs questions

Characteristic	Had some bills to pay*				Not told about costs beforehand†			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95% CI)
Suboptimal experience	2812	611	22%	—	648	273	42%	—
Sex								
Men	1182	255	22%	1	279	106	38%	1
Women	1586	349	22%	1.28 (0.96–1.69)	363	164	45%	1.54 (0.94–2.53)
Missing	44				6			
General health								
Excellent	355	84	24%	1	76	29	38%	1
Good	1889	403	21%	1.02 (0.73–1.41)	433	178	41%	1.05 (0.58–1.89)
Fair/poor	496	112	23%	1.03 (0.69–1.55)	125	62	50%	1.74 (0.86–3.51)
Missing	72				14			
Age group (years)								
< 60	887	250	28%	1	234	105	45%	1
60–69	815	182	22%	0.65 (0.49–0.85)	199	82	41%	0.89 (0.56–1.43)
70 or more	993	153	15%	0.39 (0.30–0.52)	191	71	37%	0.67 (0.41–1.09)
Missing	117				24			
Socio-economic status‡								
Lowest 40%	898	182	20%	1	182	67	37%	1
Middle 40%	1007	204	20%	1.19 (0.90–1.57)	212	90	43%	1.13 (0.69–1.84)
Top 20%	443	118	27%	1.96 (1.38–2.80)	135	67	50%	1.43 (0.78–2.59)
Missing	464				119			
Rurality§								
Metropolitan	1407	281	20%	1	295	140	48%	1
Regional	372	88	24%	1.85 (1.32–2.59)	94	32	34%	0.60 (0.33–1.08)
Rural	569	135	24%	1.94 (1.43–2.64)	140	52	37%	0.70 (0.41–1.19)
Missing	464				119			
Hospital								

Characteristic	Had some bills to pay*				Not told about costs beforehand†			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95% CI)
Public	2526	403	16%	1	424	183	43%	1
Private	254	199	78%	6.39 (4.92–8.31)	210	84	40%	0.70 (0.47–1.04)
Missing	32				14			
Cancer								
Colorectal	373	73	20%	1	75	40	53%	1
Breast	734	157	21%	0.62 (0.41–0.93)	166	74	45%	0.42 (0.21–0.84)
Prostate	294	75	26%	1.46 (0.92–2.32)	80	25	31%	0.38 (0.17–0.84)
Blood	143	35	25%	1.08 (0.62–1.88)	42	16	38%	0.46 (0.18–1.16)
Lung	125	20	16%	0.58 (0.30–1.13)	25	11	44%	0.38 (0.12–1.15)
Melanoma	201	37	18%	1.17 (0.70–1.93)	37	17	46%	0.66 (0.27–1.61)
Other	784	187	24%	1.05 (0.73–1.51)	190	73	38%	0.41 (0.22–0.78)
Missing	158				33			

aOR = adjusted odds ratio; CI = confidence interval.

* Survey question 27a (surgery): “Did you have any bills associated with your surgery that you had to pay (e.g. bills from the surgeon, anaesthetist, the hospital, bills for pathology tests or medications etc)?”

† Survey question 28 (surgery): “Before you had your surgery, were you told or given information about the costs you would have to pay?”

‡ Australian Bureau of Statistics Socioeconomic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) deciles, recoded to quintiles.¹

§ Modified Monash Model.²

Table 4. Costs associated with radiotherapy: suboptimal experiences reported by 1698 respondents having radiotherapy and answering costs questions

Characteristic	Have some bills to pay*				Not told about costs beforehand†			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95% CI)
Suboptimal experience	1698	231	14%	—	247	88	36%	—
Sex								
Men	689	104	15%	1	110	45	41%	1
Women	976	124	13%	0.98 (0.63–1.54)	133	42	31%	1.11 (0.43–2.82)
Missing	33				4			
General health								
Excellent	201	25	12%	1	28	8	29%	1
Good	1057	138	13%	1.05 (0.62–1.78)	141	55	36%	1.71 (0.50–5.88)
Fair/poor	395	62	16%	1.58 (0.88–2.86)	61	24	39%	1.94 (0.51–7.39)
Missing	45				17			
Age group (years)								
< 60	513	79	15%	1	82	34	41%	1
60–69	494	65	13%	1.02 (0.66–1.58)	65	27	42%	0.64 (0.25–1.61)
70 or more	605	73	12%	0.76 (0.50–1.17)	84	23	27%	0.30 (0.11–0.80)
Missing	86				16			
Socio-economic status‡								
Lowest 40%	500	51	10%	1	58	21	36%	1
Middle 40%	641	110	17%	1.91 (1.24–2.93)	111	36	32%	1.35 (0.55–3.33)
Top 20%	269	31	12%	1.16 (0.65–2.06)	36	13	36%	1.92 (0.61–6.08)
Missing	288				42			
Rurality§								
Metropolitan	857	118	14%	1	131	40	31%	1
Regional	207	29	14%	1.34 (0.80–2.25)	32	11	34%	1.64 (0.56–4.80)
Rural	346	45	13%	1.32 (0.82–2.10)	42	19	45%	1.38 (0.49–3.87)
Missing	288				42			
Hospital								

Characteristic	Have some bills to pay*				Not told about costs beforehand†			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95% CI)
Public	1239	103	8%	1	107	54	50%	1
Private	459	128	28%	5.08 (3.58–7.21)	140	35	25%	0.50 (0.24–1.06)
Missing	0				0			
Cancer								
Colorectal	122	21	17%	1	25	7	28%	1
Breast	546	66	12%	0.53 (0.27–1.06)	71	15	21%	1.01 (0.21–4.89)
Prostate	179	31	17%	1.05 (0.49–2.22)	30	16	53%	7.33 (1.45–37.2)
Blood	194	21	11%	0.53 (0.24–1.17)	25	8	32%	2.28 (0.43–12.1)
Lung	137	15	11%	0.57 (0.25–1.32)	15	7	47%	3.26 (0.54–19.6)
Melanoma	32	7	22%	1.54 (0.50–4.76)	6	1	17%	2.36 (0.17–33.3)
Other	371	59	16%	0.90 (0.47–1.72)	60	26	43%	2.61 (0.63–10.8)
Missing	117				15			

aOR = adjusted odds ratio; CI = confidence interval.

* Survey question 52a (radiotherapy): “Did you have any bills associated with your radiotherapy that you had to pay (e.g. bills from the doctor, hospital, bills for tests or medications etc)?”

† Survey question 53 (radiotherapy): “Before you had your radiotherapy, were you told or given information about the costs you would have to pay?”

‡ Australian Bureau of Statistics Socioeconomic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) deciles, recoded to quintiles.¹

§ Modified Monash Model.²

Table 5. Costs associated with chemotherapy: suboptimal experiences reported by 2306 respondents having chemotherapy and answering costs questions

Characteristic	Have some bills to pay*				Not told about costs beforehand†			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95% CI)
Suboptimal	2306	632	27%	—	881	439	50%	—
Sex								
Men	1055	272	26%	1	420	208	50%	1
Women	1207	352	29%	1.20 (0.93–1.54)	447	224	50%	1.10 (0.77–1.56)
Missing	44				14			
General health								
Excellent	232	68	29%	1	93	43	46%	1
Good	1460	413	28%	1.23 (0.85–1.79)	558	286	51%	1.51 (0.70–1.91)
Fair/poor	551	134	24%	1.00 (0.65–1.53)	208	97	47%	1.50 (0.57–1.83)
Missing	63				22			
Age group (years)								
< 60	730	258	35%	1	309	170	55%	1
60–69	663	186	28%	0.72 (0.55–0.94)	268	134	50%	0.75 (0.55–1.21)
70 or more	796	148	19%	0.40 (0.30–0.53)	272	120	44%	0.58 (0.47–1.04)
Missing	117				32			
Socio-economic status‡								
Lowest 40%	658	157	24%	1	251	119	47%	1
Middle 40%	827	218	26%	1.27 (0.96–1.68)	316	156	49%	0.93 (0.70–1.55)
Top 20%	387	124	32%	1.63 (1.16–2.31)	175	87	50%	0.89 (0.68–1.82)
Missing	434				146			
Rurality§								
Metropolitan	1167	309	27%	1	451	224	50%	1
Regional	286	85	30%	1.38 (0.98–1.92)	125	61	49%	1.03 (0.64–1.66)
Rural	419	105	25%	1.22 (0.89–1.67)	166	77	46%	1.13 (0.58–1.43)
Missing	434				139			
Hospital								
Public	1851	496	27%	1	667	348	52%	1

Characteristic	Have some bills to pay*				Not told about costs beforehand†			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95% CI)
Private	455	136	30%	1.19 (0.90–1.58)	214	91	43%	0.65 (0.50–1.05)
Missing	0				0			
Cancer								
Colorectal	232	90	39%	1	110	51	46%	1
Breast	434	112	26%	0.45 (0.30–0.69)	155	75	48%	0.94 (0.43–1.43)
Prostate	72	15	21%	0.50 (0.23–1.08)	34	12	35%	0.40 (0.20–1.43)
Blood	775	234	30%	0.78 (0.54–1.12)	305	165	54%	1.76 (0.86–2.35)
Lung	175	37	21%	0.50 (0.30–0.85)	60	26	43%	0.95 (0.43–1.82)
Melanoma	49	8	16%	0.32 (0.12–0.87)	18	9	50%	0.39 (0.19–2.46)
Other	439	113	26%	0.53 (0.36–0.80)	159	82	52%	1.37 (0.74–2.27)
Missing	130				40			

aOR = adjusted odds ratio; CI = confidence interval.

* Survey question 75a (chemotherapy): "Did you have any bills associated with your chemotherapy that you had to pay (e.g. bills from the doctor, hospital, tests or medications etc)?"

† Survey question 76 (chemotherapy): "Before you had your chemotherapy, were you told or given information about the costs you would have to pay?"

‡ Australian Bureau of Statistics Socioeconomic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) deciles, recoded to quintiles.¹

§ Modified Monash Model.²

Table 6. Health professionals did not provide information about key questions: suboptimal experiences

Characteristic	Financial support programs*				Financial planning services†				Accessing superannuation, income protection‡			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95%CI)
Suboptimal experience	1628	651	40%	—	767	422	55%	—	826	446	54%	—
Sex												
Men	779	281	36%	1	328	173	53%	1	352	185	53%	1
Women	826	347	42%	1.67 (1.24–2.25)	428	241	56%	1.63 (1.07–2.48)	464	255	55%	1.14 (0.75–1.74)
Missing	23				11				10			
General health												
Excellent	181	57	31%	1	83	37	45%	1	98	45	46%	1
Good	1011	366	36%	1.40 (0.93–2.12)	465	243	52%	1.62 (0.93–2.81)	515	266	52%	1.78 (1.06–3.00)
Fair/poor	392	198	51%	2.47 (1.56–3.90)	201	129	64%	2.48 (1.34–4.57)	194	119	61%	2.60 (1.43–4.70)
Missing	44				18				19			
Age group (years)												
< 60	615	252	41%	1	379	203	54%	1	445	245	55%	1
60–69	492	198	40%	0.90 (0.66–1.21)	213	126	59%	1.02 (0.67–1.54)	220	127	58%	1.18 (0.78–1.76)
70 or more	454	161	36%	0.89 (0.65–1.21)	143	74	52%	0.98 (0.62–1.55)	121	49	41%	0.62 (0.38–1.00)
Missing	67				32				40			
Socio-economic status§												
Lowest 40%	603	175	29%	1	225	119	53%	1	231	101	44%	1
Middle 40%	561	243	43%	1.50 (1.11–2.02)	287	167	58%	1.30 (0.86–1.96)	305	173	57%	2.07 (1.37–3.14)
Top 20%	189	102	54%	1.88 (1.24–2.84)	109	59	54%	1.16 (0.67–1.99)	129	81	63%	2.59 (1.52–4.41)

Characteristic	Financial support programs*				Financial planning services†				Accessing superannuation, income protection‡			
	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95%CI)	Respondents	Number	Proportion	aOR (95%CI)
Missing	275				146				161			
Rurality¶												
Metropolitan	686	333	49%	1	385	214	56%	1	445	245	55%	1
Regional	224	75	34%	0.57 (0.39–0.83)	91	54	59%	1.07 (0.62–1.85)	84	43	51%	1.00 (0.56–1.76)
Rural	443	112	25%	0.42 (0.30–0.58)	145	77	53%	0.91 (0.57–1.44)	136	67	49%	1.17 (0.73–1.85)
Missing	275				146				161			
Hospital												
Public	1394	547	39%	1	643	347	54%	1	688	359	52%	1
Private	234	96	41%	1.01 (0.71–1.44)	124	74	60%	1.80 (1.09–2.95)	138	85	62%	1.56 (0.97–2.52)
Missing	0				0				0			
Cancer												
Colorectal	147	73	50%	1	85	56	66%	1	79	54	68%	1
Breast	327	114	35%	0.35 (0.21–0.58)	176	83	47%	0.33 (0.17–0.65)	212	110	52%	0.38 (0.19–0.76)
Prostate	163	62	38%	0.76 (0.43–1.32)	56	30	54%	0.72 (0.32–1.60)	56	24	43%	0.32 (0.14–0.75)
Blood	352	120	34%	0.42 (0.27–0.68)	164	85	52%	0.57 (0.30–1.07)	180	91	51%	0.37 (0.19–0.72)
Lung	114	43	38%	0.56 (0.31–1.00)	48	25	54%	0.89 (0.37–2.11)	55	25	46%	0.50 (0.21–1.18)
Melanoma	54	20	37%	0.64 (0.29–1.39)	13	8	62%	1.21 (0.27–5.47)	16	11	69%	0.99 (0.25–3.94)
Other	370	165	45%	0.73 (0.47–1.16)	190	115	61%	0.80 (0.43–1.50)	185	110	60%	0.60 (0.31–1.18)
Missing	101				35				43			

aOR = adjusted odds ratio; CI = confidence interval.

* Survey question 112: "Did any health professionals talk to you about any financial support programs you might have been able to use? (e.g. this could be to help with the cost of travelling to your treatment if you lived far away, or payments through Centrelink etc.)."

† Survey question 114h: "Below are some services or health professionals that some people use during their cancer treatments. We would like to know if a health professional talked to you about any of the following services. Financial planner/services."

‡ Survey question 115d: "Did health professionals ask you if you needed any help or assistance with the following: Your finances (accessing your superannuation, illness insurance, income protection etc.)?" [Author: Correct?]

§ Australian Bureau of Statistics Socioeconomic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) deciles, recoded to quintiles.¹

¶ Modified Monash Model.²

References

1. Australian Bureau of Statistics. 2033.0.55.001. Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016. 27 Mar 2018. <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Features~IRSAD~20> (viewed Mar 2023).
2. Australian Department of Health and Aged Care. Modified Monash Model. Updated 14 Dec 2021. <https://www.health.gov.au/topics/rural-health-workforce/classifications/mmm> (viewed Dec 2022).