Under or over?

General practitioner charging of Medicare

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Background and objective

In 2022, media reports alleged that doctors, particularly general practitioners (GPs), are defrauding Medicare, claiming $8 billion lost through fraud/non-compliance. This study examined Medicare Benefits Schedule billing patterns by consultation length to estimate overcharging or undercharging by GPs, and the cost/savings to Medicare.

Methods

A subset of data from the Bettering the Evaluation And Care of Health (BEACH) program from 2013 to 2016, which included length of consultation information, was analysed.

Results

Of 89,765 consultations, GPs undercharged 11.8% of consultations and overcharged 1.6%. Of the 2760 GPs sampled, 816 (29.6%) overcharged at least once and 2334 (84.6%) undercharged at least once. Of the GPs who overcharged at least once, 85.4% also undercharged. The total effect of GP undercharging and overcharging was a net saving of $351.7 million to Medicare.

Discussion

This study shows that GPs undercharging and overcharging saved Medicare over one-third of a billion dollars in 2021–22. The findings of this study do not support the media claims of widespread fraud by GPs.

AUSTRALIA has a universal fee-for-service health insurance scheme called Medicare, through which the Australian Government subsidises or pays in full for community-based medical services, including visits to general practitioners (GPs).[1] Australians collectively have more than 180 million consultations with GPs every year, with 90% of the population claiming for a GP visit at least once in 2021–22.[2] In 2021–22, a total of $28.8 billion was paid in Medicare benefits, with claims for GP services accounting for $9.1 billion.[2]

The Medicare Benefits Schedule (MBS) is a listing of the services subsidised through Medicare. One part of the Schedule includes items for professional attendances by a GP, and the levels (A–D) applicable to these items, to assist GPs in selecting the appropriate fee (known as the 'scheduled fee') when charging.[3] GPs can charge for one or more MBS items for a patient encounter, including those that relate to the type of attendance (e.g. surgery, home visit) and its length, identified according to four groups (Levels A–D; see Box 1).

In October 2022, media reports alleged doctors (and GPs in particular) are defrauding Medicare, with claims that $8 billion (27.8% of the total benefits claimed in 2021–22) is lost through fraud, non-compliance and overservicing.[4,5] These claims were reportedly based on a PhD thesis; however, the thesis does not mention this $8 billion figure, nor does it include any quantitative data that would support this claim.[6] The thesis states:

> *…some commentators have suggested that inefficiencies in billing may cost the Australian health system $1.2–3.6 billion annually (Webber 2012).* [Chapter 3, p. 126]

and:

> *…one commentator has suggested deliberate misuse by medical practitioners costs taxpayers $2–3 billion annually or 10–15% of the schemes' [sic] total cost.* [Chapter 4, p. 145]

with the same source (Webber 2012[7]) cited. To the best of our knowledge, the method used to calculate the '$8 billion' figure reported in the media has not been published. The claims have been refuted by the Australian Medical Association[8,9] and the Commonwealth Department of Health (DoH).[10]

Medicare compliance and fraud investigation are managed through a range of Commonwealth programs and activities. The headline level of 27.8% of all benefits paid far exceeds previous approximations, the most recent from the Commonwealth DoH estimating that 2–5% of claims are possibly non-compliant.[11]

A significant barrier to investigating the validity of the claims is that there are no current reliable data sources that can examine GP billing. Medicare statistics inform about service utilisation (the cost and frequency of visits claimed for

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GP service items), but not about the actual length or content of GP–patient consultations. Extractions from GP software are unreliable because a patient's record is not necessarily closed immediately at the end of a consultation, and compatibility issues render analyses of these records problematic.[12]

The Bettering the Evaluation And Care of Health (BEACH) project ran from 1998 to 2016.[13] Participating GPs actively collected start and finish times during their recorded patient encounters. An international review described the BEACH methods for measuring length of consultation as the 'gold standard'.[14] A 2004 BEACH analysis found that for consultations longer than 20 minutes duration, 38.4% were claimed as Level B, and 61.6% were claimed as Level C.[15] Since November 2010, item levels are predominantly differentiated according to their duration, with content considered only in differentiating between Level A and the other levels (Box 1). Given the capacity of BEACH data to provide some reliable, quantifiable input from a nationally representative sample of GPs, the aim of this study was to examine MBS billing patterns by consultation length to estimate the relative overcharging or undercharging by GPs and the relative cost (or savings) to Medicare.

Methods

This study analysed data from BEACH program substudies. BEACH was a continuous, national, cross-sectional study of general practice clinical activity in Australia conducted from April 1998 to March 2016 inclusive. The methods used in BEACH are described in detail elsewhere.[13] In summary, each year an ever-changing, random sample of approximately 1000 GPs recorded information about encounters with 100 consecutive consenting patients on structured paper forms. The BEACH program was approved by the Human Research Ethics Committee of the University of Sydney (Reference no. 2012/130).

At each encounter, the GP was asked to record how the encounter would be paid:

through the MBS (including up to three MBS item numbers where applicable), workers' compensation, paid through another source or no charge.

In a substudy of 40% of all surveyed encounters, GPs were asked to record the start and finish time of the encounter so that the length of consultations could be calculated.[13] For this analysis, the sample was restricted to these substudy encounters collected in 2013–16 inclusive

for which the length of consultation could be calculated and an MBS consultation item from Level A (Items 3, 4, 20; now 90020), Level B (Items 23, 24, 35; now 90035), Level C (Items 36, 37, 43; now 90043) or Level D (Items 44, 45, 51; now 90051) was recorded. These items include surgery, home, residential aged care facility and other institutional consultation item numbers and, together, accounted for 95.0%, 94.0% and 93.7% of MBS claimed

Box 1. Definition of Medicare Benefits Schedule consultation items in Levels A–D*

Consultation item	Definition
Level A	Professional attendance for an obvious problem characterised by the straightforward nature of the task that requires a short patient history and, if required, limited examination and management
Level B	Professional attendance by a GP (not being a service to which any other item in this table applies) lasting less than 20 minutes, including any of the following that are clinically relevant:
	a. taking a patient history
	b. performing a clinical examination
	c. arranging any necessary investigation
	d. implementing a management plan
	e. providing appropriate preventive healthcare
	in relation to one or more health-related issues, with appropriate documentation
Level C	Professional attendance by a GP (not being a service to which any other item in this table applies) lasting at least 20 minutes, including any of the following that are clinically relevant:
	a. taking a detailed patient history
	b. performing a clinical examination
	c. arranging any necessary investigation
	d. implementing a management plan
	e. providing appropriate preventive healthcare
	in relation to one or more health-related issues, with appropriate documentation
Level D	Professional attendance by a GP (not being a service to which any other item in this table applies) lasting at least 40 minutes, including any of the following that are clinically relevant:
	a. taking an extensive patient history
	b. performing a clinical examination
	c. arranging any necessary investigation
	d. implementing a management plan
	e. providing appropriate preventive healthcare
	in relation to one or more health-related issues, with appropriate documentation

*Modified, with permission from the Australian Government Department of Health and Aged Care.[3] Note, this information is correct as of 25 November 2022 and does not account for any changes made past this date. GP, general practitioner.

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encounters in 2013–14,[16] 2014–15[17] and 2015–16,[13] respectively.

We divided the time-measured consultations into three bands (<20, 20–39 and ≥40 minutes) and, for each band, the distribution of item numbers recorded. Encounters were then assigned as being: (1) 'per schedule' (ie the measured length was within the MBS description relating to time); (2) overcharged (the encounter was shorter than required for the item to be claimed); and (3) undercharged (the encounter was billed as a lower MBS item than the GP was able to claim based on MBS descriptions for length of consultation).

To calculate the cost to Medicare of GPs overcharging and undercharging, we first calculated the difference in the MBS rate between the item charged and the item that could have been charged using the July 2022 rebates. For example, a 19-minute consultation claimed as a Level C ($76.95; MBS Level C rate) minus the MBS Level B rate of $39.75 results in an additional cost to Medicare of $37.20. This cost was multiplied by the rate at which this type of overcharging occurred per Level C item claimed in the current analysis (ie $37.20 multiplied by the number of Level C items overcharged, divided by the total number of Level C items claimed in our sample). This

amount was added to the other types of overcharging and undercharging for this item to calculate a total overcharging/ undercharging amount per consultation where a Level C item was claimed. This figure was then extrapolated to the total number of times that items in each level were claimed nationally in 2021–22 to calculate the total cost difference for each level. Each level cost was summed to calculate the total cost to Medicare for GPs undercharging and overcharging.

Results

From April 2013 to April 2016, 2760 GPs recorded information for 89,765 consultations for which start and finish times were reported and a Level A, B, C or D MBS item was recorded. Of these consultations, 66,864 (74.5%) were less than 20 minutes in length, 20,926 (23.3%) were 20–39 minutes in length and 1975 (2.2%) were 40 minutes or longer (Table 1).

For consultations lasting less than 20 minutes, 98.2% were billed per schedule as Level A or B items. Of the consultations, 1.8% (n = 1232) were overcharged at Level C and 24 (0.03%) were overcharged at Level D.

For consultations that were 20–39 minutes long, 45.1% were undercharged as

either Level A (n = 53) or Level B (n = 9390). More than half (54.1%; n = 11,315) were billed per schedule as Level C and 0.8% were overcharged as Level D (n = 168).

For consultations of 40 minutes or more, 57.1% were undercharged as Level A (n = 3), Level B (n = 371) or Level C (n = 753), with only 42.9% billed per schedule.

For the 89,765 consultations, GPs undercharged 10,570 times (11.8% of all consultations) and overcharged 1424 times (1.6% of all consultations). Of the 2760 GPs in our sample, 816 (29.6%) overcharged at least once and 2334 (84.6%) undercharged at least once. Of the 816 GPs who overcharged at least once, 697 (85.4%) also undercharged at least once.

Table 2 presents cost differences between MBS items charged and the MBS items that could have been charged based on the length of the consultation. Table 3 presents the cost of GPs undercharging and overcharging Medicare. Most overcharging occurred in items claimed as Level C, with GPs overcharging an estimated $25.3 million. However, the largest saving was found among items claimed at Level B (where items could have been claimed at Level C or Level D), with a combined saving to Medicare of $382.3 million. The total effect of GP

Table 1. Medicare Benefits Schedule items claimed by length of consultation 2013–16 Bettering the Evaluation And Care of Health (BEACH) data

| | MBS claim level | | | | | | | | |
| | Level A | | Level B | | Level C | | Level D | | All |
	n	Row % (95% CI)	n	Row % (95% CI)	n	Row % (95% CI)	n	Row % (95% CI)	n (column %)
Length of consultation (minutes)									
1–19	1,974	3.0 (2.8, 3.1)	63,634	95.2 (95.0, 95.4)	1,232	1.8 (0.7, 1.9)	24	0.0 (0.0, 0.1)	66,864 (74.5)
20–39	53	0.3 (0.2, 0.3)	9,390	44.9 (44.2, 45.5)	11,315	54.1 (53.4, 54.7)	168	0.8 (0.6, 0.9)	20,926 (23.3)
≥40	3	0.2 (0.0, 0.3)	371	18.8 (17.1, 20.5)	753	38.1 (36.0, 40.3)	848	42.9 (40.8, 45.1)	1,975 (2.2)
Total (n, row %)	2,030	2.3	73,395	81.8	13,300	14.8	1,040	1.2	89,765 (100)

Blue indicates undercharged, green indicates charged per schedule and red indicates overcharged. CI, confidence interval; MBS, Medicare Benefits Schedule.

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undercharging and overcharging was a net saving of $351.7 million to Medicare.

Discussion

This study has shown that the effect of GPs undercharging and overcharging Medicare is a net estimated saving of over one-third of a billion dollars in 2021–22. Although 1.6% of GP consultations were overcharged (especially Level C and Level D items), this was dwarfed by the magnitude at which GPs undercharged items (equating to 11.8% of consultations), particularly when they claimed Level B items for consultations that lasted 20 minutes or longer. This supports the findings of recent surveys, where GPs stated that they regularly billed a lower item than the item they could have claimed according to the schedule due

to fear of 'triggering a Medicare alert'.[18] This is not a new finding; GPs reported in 1996[19] and 2022[20] that they regularly undercharged longer consultations due to fear of investigation. In addition, a previous substudy of BEACH found that GPs spend a significant amount of time on patient clinical care that could not be billed through Medicare.[21] It was estimated at the time that this 'non-billable time' was worth between $10,526 and $23,008 per average GP in 2012–14.

One limitation of this study relates to the MBS rule that only time during which a patient is receiving active attention should be counted. In our analysis we have not considered (because we could not identify) any periods within the consultation where the GP was not actively attending to the patient. Another limitation of the study is that the data were collected in 2013–16,

at least six years ago. The extent to which the billing patterns identified in this study remain today is unknown. However, the pattern noted in the 2004 study[15] appears to have held over the decade to this investigation. Although time is the predominant measure, GPs are likely to still consider content/complexity when billing Medicare. This highlights the need for contemporary, valid, reliable, independent, general practice data to be able to investigate concerns such as this in a timely manner.

This study did not consider the content of consultations because this was only relevant to Level A items. Although GPs could record up to three MBS items per encounter, our focus was Level A–D item numbers because these accounted for >90% of consultations where a Medicare item was recorded in BEACH

Table 2. Cost difference between the Medicare Benefits Schedule (MBS) item charged and the MBS item that could have been charged based on consultation length

| | MBS rebates* | | | | | | | |
| | Level A = $18.20 | | Level B = $39.75 | | Level C = $76.95 | | Level D = $113.30 | |
	n	Difference ($)	n	Difference ($)	n	Difference ($)	n	Difference ($)
Length of consultation (minutes)								
1–19	1,974	–	63,634	–	1,232	−37.20	24	−58.75
20–39	53	58.75	9,390	37.20	11,315	–	168	−36.35
≥40	3	95.10	371	73.55	753	36.35	848	–
Total	2030	3,399.05	73,395	376,595.05	13,300	−18,458.85	1,040	−7,516.80

*As of July 2022. Blue indicates undercharged, green indicates charged per schedule and red indicates overcharged.

Table 3. Calculated total savings/losses to Medicare of general practitioner undercharging and overcharging

| | MBS claim level | | | |
	Level A	Level B	Level C	Level D
Saving/loss per item in level charged* ($)	1.6744	5.1311	−1.3879	−7.2277
Items claimed by GPs in 2021–22 nationally†	4,286,661	74,512,470	18,224,921	1,736,046
Total savings/loss per level	7,177,623	382,328,869	−25,294,066	−12,547,606
Total savings to Medicare (2021–22)		351,664,820		

*Calculated as the total 'Difference' divided by the total 'n' in Table 2. Note, this calculation is based on general practitioner (GP) behaviour in 2013–16, the number of items claimed in the 2021–22 financial year and on the July 2022 Medicare Benefits Schedule (MBS) rebate levels. †Claimed during 2021–22 financial year.

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and were easily categorised by length of consultation. This study only relates to Medicare billing and does not examine co-payments by patients because we did not collect co-payment information.

Conclusion

Based on the findings of this study, GP billing of Medicare consultation items potentially saved Medicare over one-third of a billion dollars in 2021–22. Some overcharging was identified, but this was dwarfed by the scale of the savings. Of the GPs shown to have overcharged at least once, the vast majority also undercharged at other consultations.

As a result, the findings of this study do not support recent media claims of fraud relating to GP billing of Medicare. Ultimately, this study has shown that GPs are more likely to err towards undercharging than overcharging, albeit for the very specific area of billing that could be investigated using data from BEACH.

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