



Australian Government

Australian Institute of
Health and Welfare

infocus

Medicare funding of GP services over time

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Key findings:

- Australians are seeing a GP more often. From Medicare's inception in 1984 until 2022, the yearly GP services attendance rate has increased from 3.8 to 6.8 visits per person. Noting that Medicare started in February 1984. In 1985, the first full year of Medicare, the GP services attendance rate was 4.3.
- After adjusting for differences in the age structure of the populations, the age-standardised GP services attendance rate has increased from 4.0 in 1984 to 6.4 GP services per person in 2022.
- How often we see a GP depends on where we live. In 2022, the GP services attendance rate in *Major cities* was almost twice that of *Very remote areas* (7.0 and 3.5 respectively), however this gap has narrowed over time.
- The GP services attendance rate also varied according to SEIFA. People living in areas of lower socio-economic status have consistently over time had a higher number of GP attendances.
- The percentage of total GP fees subsidised through the MBS (GP subsidy rate) had been fairly stable at around 90% from 2005 up until the pandemic. Since the pandemic commenced the GP subsidy rate increased to 92% in 2020 and then dropped to 84.6% in June 2023.
- The average patient contribution for those GP services that were not fully subsidised through the MBS has increased over time. Between 1984 and 2022 the average patient contribution increased by 294%, from \$10.80 to \$42.70 (adjusted for inflation). As at June 2023 the average patient contribution for these services was \$41.40.
- The GP services attendance rate has declined in 2023 below the pre-pandemic trend. When comparing the first six months of 2022 and 2023, the largest Local Government Areas, by population, had the greatest contribution to the decline in GP attendances nationally. Within these large LGAs the change in GP attendances also appears to be influenced by the socio-economic conditions.

Yearly GP services
attendance rate
has increased from 3.8 to
6.8 visits per person from
1984 to 2022



In 2022, the GP services
attendance rate in
Major cities was almost
twice that of
Very remote areas



The average patient
contribution for GP visits
that were not fully subsidised
through the MBS has
increased over time



AIHW

Summary

This report provides additional analysis of Medicare Benefits Scheme (MBS) data to that available in the [MBS funded services over time dashboard](#). It focuses on the following five key measures, calculated on an annual and monthly basis, at the national level, by Remoteness Area (RA), and by socio-economic status (SEIFA):

1. **GP services attendance rate:** the average number of GP services per person.
2. **GP subsidy rate:** the percentage of the total fee charged for GP services that is paid by the Australian Government through the MBS.
3. **GP out of pocket rate:** the percentage of GP services where the fees were not fully covered by the MBS and so attracted a patient 'out of pocket' (OOP) contribution.
4. **Average GP out of pocket costs:** the average amount of patient contribution for services where the fees were not fully covered by the MBS.
5. **Average GP out of pocket costs for all services:** the average amount of patient contribution for all GP services including services where the fees were not fully covered by the MBS.

The GP services attendance rate has generally risen faster than population growth and population ageing over time - from an average of 3.8 services per person in 1984 to 6.8 services in 2022. In the first six months of 2023, however, the rate has declined sharply.

Over time, it appears that there is a positive correlation between service affordability and the rate that people access GP services. When the GP subsidy rate dipped to 87% in 2003, there was a corresponding decrease in the GP attendance rate. Similarly, when policies were introduced to increase the amount of money patients received for each GP service in 2004, the GP subsidy rate increased to around 91% in 2005 and the GP attendance rate also returned to its upward trend. At other times, the relationship has been less clear.

For those patients that do incur an out of pocket (OOP) costs for a visit to the GP, the average OOP costs has been increasing overtime, from 10.83 in 1984 to 42.72 in 2022 (adjusted for inflation, 2022 prices). In contrast over the last 12 months, the average OOP costs per GP presentation dropped by 4.5%, from \$43.39 in June 2022 to \$41.40 in June 2023.

Where people live in terms of Remoteness Areas (RA) and their socio-economic status (SEIFA) also appear to be important factors affecting GP attendance rates. *Major cities* have maintained a much higher GP attendance rate over time than *Very remote* areas despite the GP subsidy rate being higher in the *Very remote* areas and the patient contributions much lower. Furthermore, the most advantaged socio-economic areas (based on IRSD SEIFA) have had the highest average patient contributions to GP costs. For example, in 2022, the average OOP costs per all services for individuals residing in the most disadvantaged areas was \$3.07, while for those in the most advantaged area, the cost was \$8.84.

Data sources:

GP attendances data

Information about the use of GP services, including the number of services provided and the amount paid by Medicare, was obtained from the Medicare Benefits Schedule (MBS) dataset, which is administered by the Department of Health and Aged Care. GP attendances include both Non-hospital and In-hospital GP presentations, as well as services rendered by a practice nurse or an Aboriginal and Torres Strait Islander Health Practitioner on behalf of a GP (identified by BTOS groups: 0101, 0102, 0103 and 0110). Also, the GP attendances related to the assessment of patient suitability for the COVID-19 vaccine were included in this analysis. The MBS data in this in-focus report was extracted on 8 August 2023, which means it would contain MBS claims processed up until COB 7 August 2023 and had a date of service up to 30 June 2023.

Population data

The population statistics used in this analysis are derived from the Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) data, which is based on the population estimates as of 30 June each year. For any month in the first half of a calendar year, the ERP corresponds to the population estimate as of 30 June of the previous year. Conversely, for any month in the second half of the year, the ERP corresponds to the population estimate as of 30 June of that same year. When the specific ERP for a particular area is not available, the most current ERP data is used.

Measure 1: GP services attendance rate

What does GP services attendance rate mean?

The GP services attendance rate per person for a specific time interval, whether it is monthly or annually, is calculated using the following formula:

GP services attendance rate = Sum of GP services during the time interval / the relevant ERP for the same time period.

For age-standardised GP services attendances rate, the denominator is the age-standardised population as at 2001.

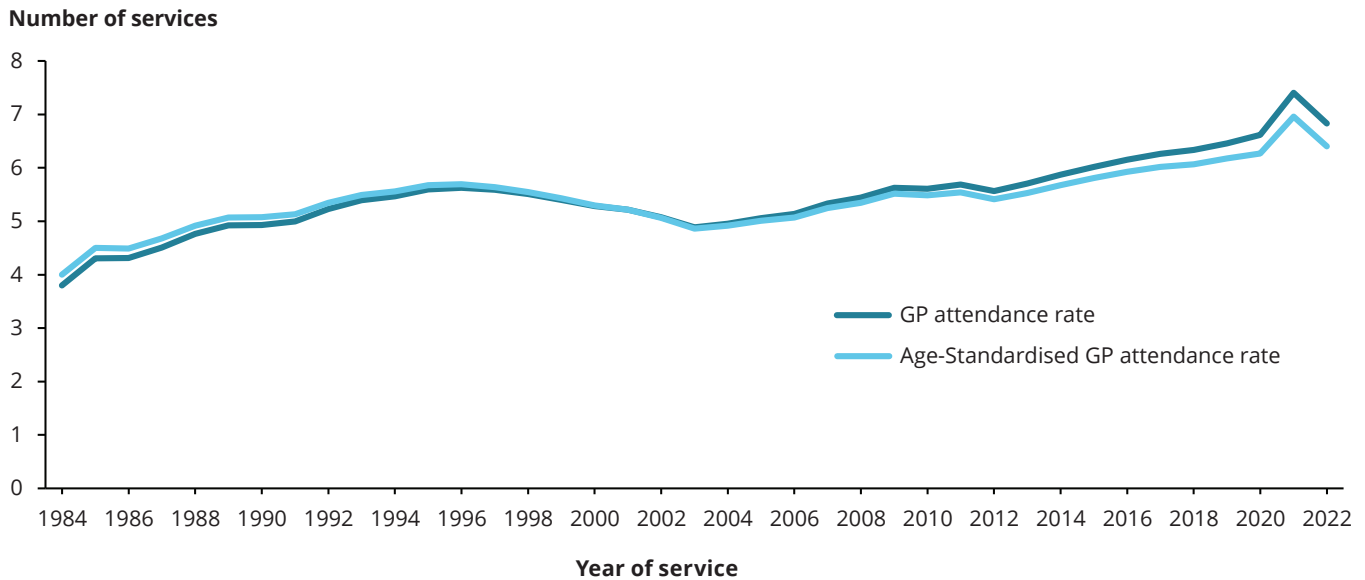
How have the number of GP attendances per person changed over time?

Between 1984 and 2001, there was an upward trend in the GP services attendance rate, rising from 3.8 in 1984 to 5.2 in 2001. However, in 2003 and 2004, there was a slight decline, with the GP attendance rate dropping to approximately 4.9. From 2005, the GP services attendance rate began to climb again and reached 6.8 GP attendances per person in 2022.

The sharp increase in GP services attendance rate (7.4 GP attendances per person) in 2021 can be attributed to increased demand for GP attendances related to the COVID-19 vaccine patient suitability assessments and the utilisation of telehealth attendances (Figure 1).

After adjusting for differences in the age structure of the populations, the age-standardised GP services attendance rate has increased from 4.0 in 1984 to 6.4 GP services per person in 2022 (Figure 1).

Figure 1: GP services attendance rate, by year



Source: AIHW analysis of MBS data, DoHAC 2023.

GP services attendance rate by remoteness

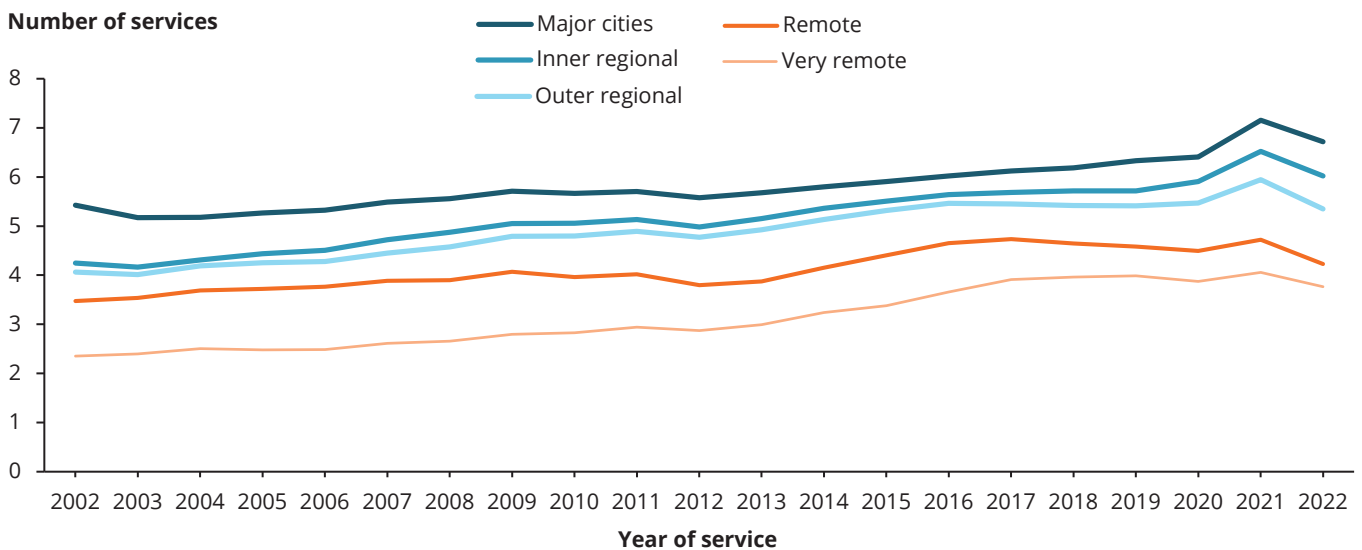
The GP services attendance rate varies significantly by remoteness areas in Australia. In 2022, GP services attendances rate in *Major cities* was 7.0 compared to 3.5 GP attendances per person in *Very remote* areas.

The disparity in GP services attendance rate between *Major cities* and *Very remote* has narrowed over the years. In 2002, the GP services attendance rate in *Major cities* was 2.7 times higher than *Very remote* areas, however by 2022, the difference was only 2.0 times higher (Figure 2).

A similar trend was observed in the age-standardised rate of GP services attendance.

In 2002, the rate of GP attendances per person in *Major cities* was 2.3 times higher than *Very remote* areas, while in 2022, this difference was 1.8 times higher.

Figure 2: GP services attendance rate , by year and remoteness



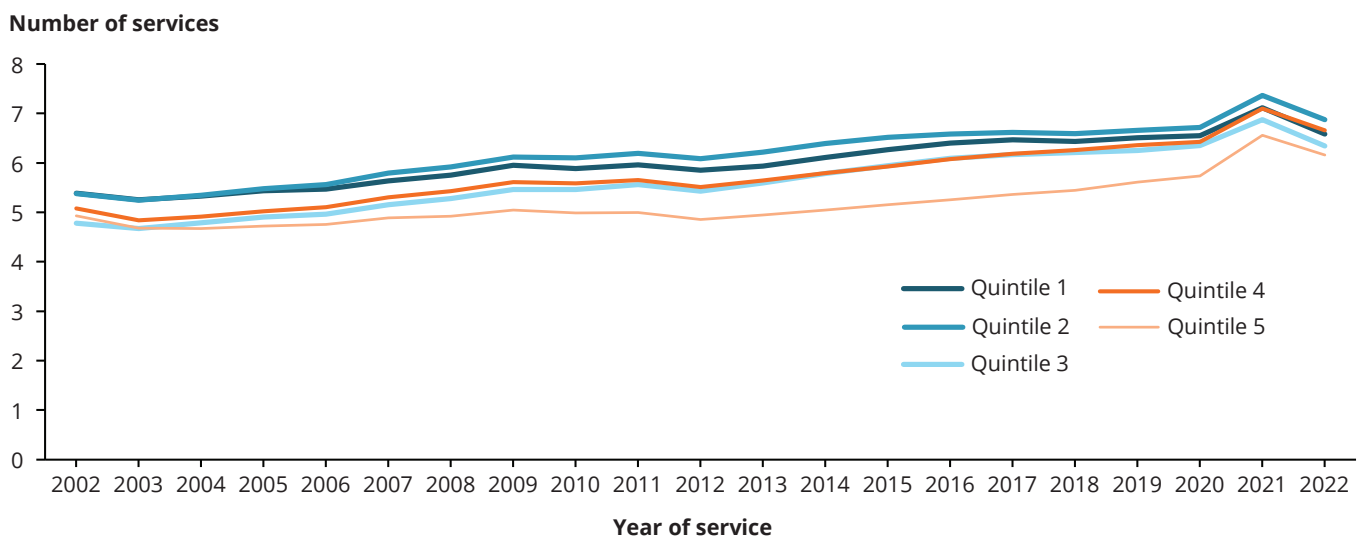
Source: AIHW analysis of MBS data, DoHAC 2023.

GP services attendance rate by SEIFA

SEIFA is a measure of the socio-economic status of an area based on characteristics such as income, education, and occupation of people who live in each area. SEIFA divides areas into quintiles, with quintile 1 being the most disadvantaged and quintile 5 being the most advantaged. Analysis of the GP services attendance rate by SEIFA shows that people living in areas with lower socio-economic status tend to have higher number of GP attendances compared to those living in areas with higher socio-economic status. For instance, in 2022, the GP services attendance rate for individuals living in quintile 1 and quintile 2 were 7.1 and 7.3 respectively, while for those living in quintile 5 was 6.5 (Figure 3).

This is in contrast to the previously published MBS services rate data (AIHW 2023), which shows that the lowest socioeconomic areas had the lowest MBS services rates. However it is important to note that the MBS services rate includes all MBS services, not just GP services

Figure 3: GP services attendance rate, by year and SEIFA



Source: AIHW analysis of MBS data, DoHAC 2023.

When comparing the age-standardised GP services attendance rate by SEIFA a similar pattern was noted. People living in areas with lower socio-economic status tend to have higher number of GP attendances. For example, in 2022, the age-standardised GP services attendance rate for individuals living in quintile 1 and quintile 2 were 6.6 and 6.9 respectively, while for those living in quintile 5 was 6.2. The disparity in GP services attendance rate between quintile 1 and quintile 5 was highest between 2011 and 2017, with an average difference of approximately 17% (6.1 for quintile 1 versus 5.1 for quintile 5), compared to only 6% in 2022 (6.6 for quintile 1 versus 6.2 for quintile 5).

Measure 2: GP subsidy rate

What does GP subsidy rate mean?

The GP subsidy rate refers to percentage of provider fees paid by Medicare for a given time interval and is calculated using the following formula:

GP subsidy rate = (Sum of benefits paid in the time interval / Sum of fees charged for the same time period) x 100%.

The subsidy paid refers to the total amount of Medicare Benefit paid for services rendered by a service provider. This subsidy is paid by Medicare to the patient except in the case of a bulk billed patient where the subsidy is paid to the provider.

The fee charged refers to the total amount the GP invoices or bills for the services they have provided. It represents the actual cost of the service as determined by the GP. The fee charged reflects the practitioner's professional fee for the service rendered, while the subsidy paid is the portion covered by Medicare.

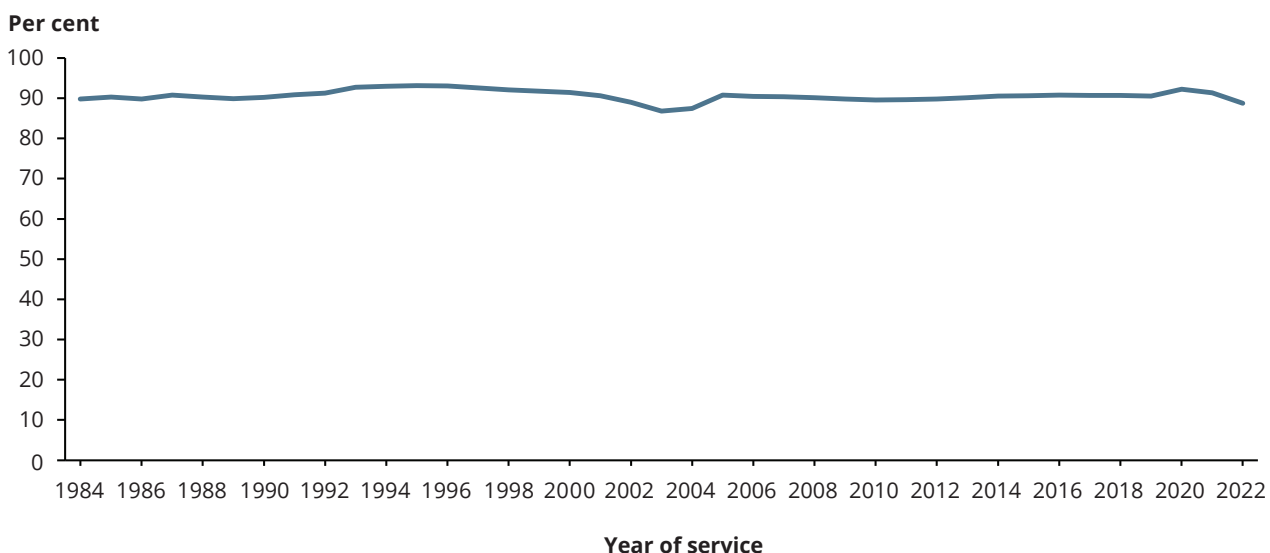
What percentage of GP service fees were subsidised by Medicare?

The percentage of provider fees paid by Medicare is an indication of the extent to which the government contributes to the cost of GP services delivered under the Medicare system. Higher percentages indicate a greater proportion of government funding, while lower percentages indicate a higher proportion of patient contributions.

In 2022, Medicare subsidised 89% of GP attendances fees, a decrease from a recent high of 92% in 2020 (driven by telehealth during COVID-19 pandemic).

The GP subsidy rate has varied over time due to various policy changes and reforms but has been relatively stable since its inception (Figure 4). Between 1984 to 2001 the GP subsidy rate was over 90%. The GP subsidy rate has then gradually decreased over the years, reaching a low of 87% in 2003 and 2004. The MBS reform of 2004 aimed to address this issue by rebating 100% of the schedule fee for GP attendances. As a result, the GP subsidy rate increased to around 91% in 2005 and remained at this level, until 2022 decreasing to 89%.

Figure 4: GP subsidy rate, by year

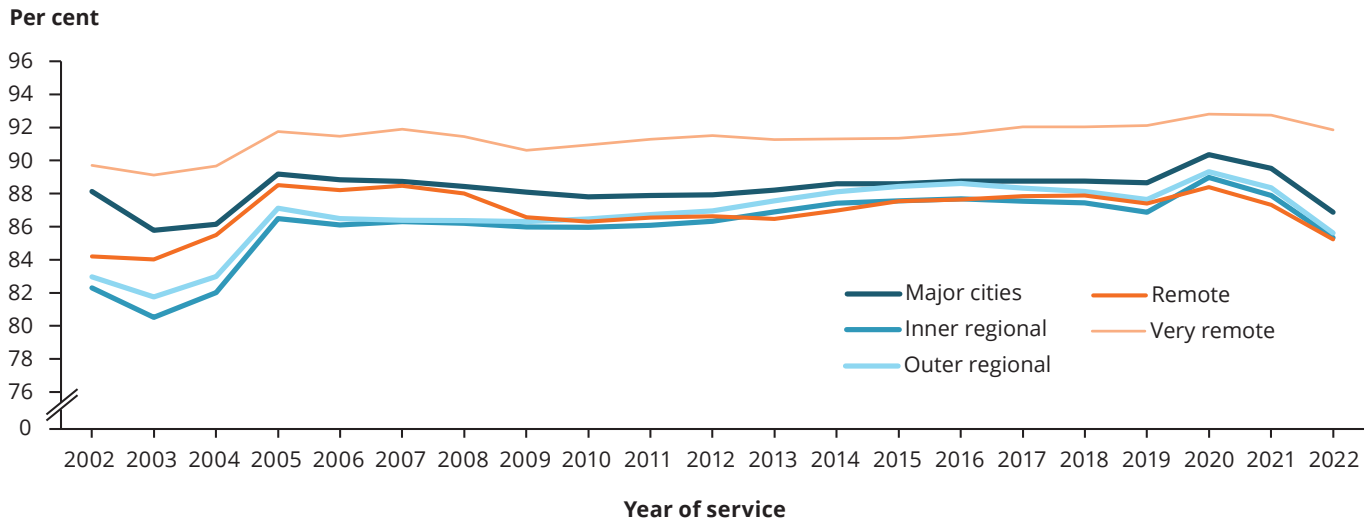


Source: AIHW analysis of MBS data, DoHAC 2023.

GP subsidy rate by remoteness

The percentage of provider fees paid by Medicare varied by remoteness. From 2002 to 2022, GP subsidy rate was lower in *Major cities* compared to *Very remote* areas. In 2022, the GP subsidy rate was higher in *Very remote* areas (94%) compared to *Major cities* (89%). In 2003, GP subsidy rate in *Major cities* was 88%, while in *Very remote* areas, the GP subsidy rate was 91%. Following the MBS reform of 2004, GP subsidy rate increased to 91% in *Major cities* and 94% in *Very remote* areas in 2005 (Figure 5).

Figure 5: GP subsidy rate, by year and remoteness

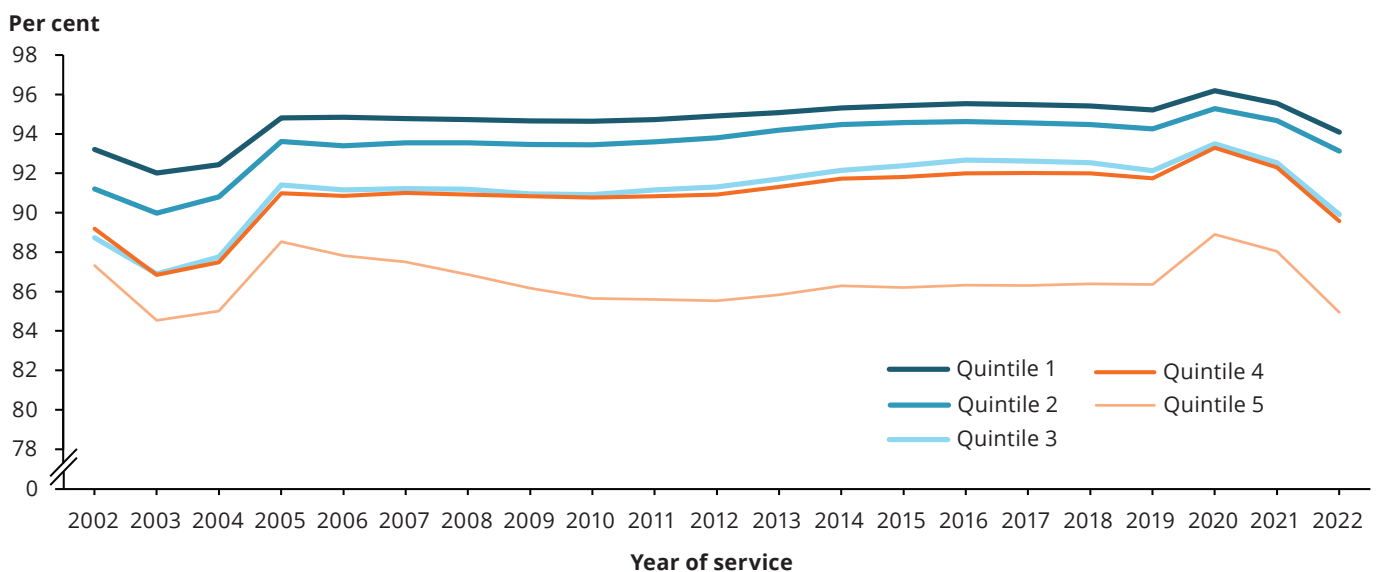


Source: AIHW analysis of MBS data, DoHAC 2023.

GP subsidy rate by SEIFA

The GP subsidy rate also varied according to SEIFA. Areas with lower SEIFA scores tend to have a higher GP subsidy rate compared to areas with higher SEIFA scores. For example, in 2022, the GP subsidy rate in quintile 1 and 2 areas were higher (94% and 93% respectively) compared to quintile 4 and 5 areas (90% and 85% respectively). The subsidy rates are now lower than prior to COVID-19 across all SEIFA quintiles (Figure 6).

Figure 6: GP subsidy rate, by year and SEIFA



Source: AIHW analysis of MBS data, DoHAC 2023.

Measure 3: GP out of pocket rate

What does GP out of pocket rate mean?

The GP OOP rate refers to the percentage of GP attendances that incurred any OOP costs for a given time interval and is calculated using the following formula:

GP OOP rate = (Sum of GP attendances that incurred any OOP costs in the time interval / Sum of GP services for the time period) x 100%.

The benefit paid by Medicare may not cover the full fee charged by the practitioner. The difference between the benefit paid and the fee charged is often referred to as the OOP costs, which is the amount the patient may be responsible to pay.

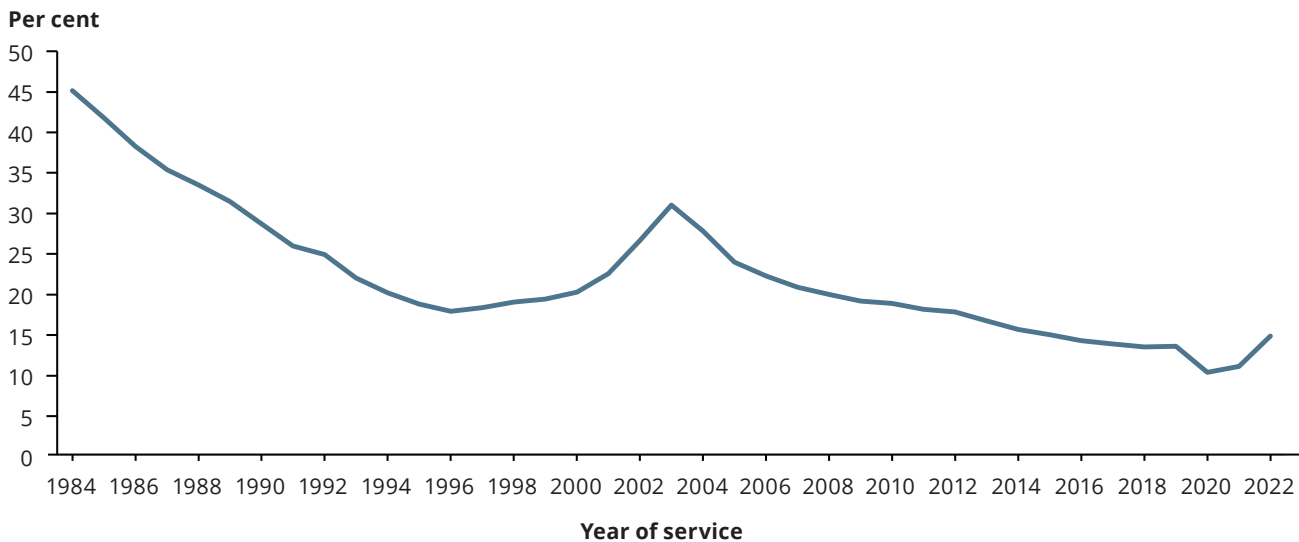
What percentage of GP attendances had an out-of-pocket cost?

Medicare is Australia's publicly funded universal healthcare system that covers a significant portion of the costs associated with medical services, including GP consultations. Although Medicare covers the entire scheduled fee for GP attendances, there are instances where GPs may charge a fee greater than the scheduled fee. These costs are known as "gap" payments, and they can vary depending on factors such as the type of service provided and the location of the practice. The GP OOP rate refers to the percentage of GP services that incurred any additional expenses patients pay for GP consultations not covered by Medicare.

In recent years, there has been a growing concern regarding the rise in OOP rate for GP attendances. The GP OOP rate has increased from 10% in 2020 to 15% in 2022 (Figure 7). This trend highlights the expanding financial burden faced by patients when accessing GP care, even with the support of Medicare.

The proportion of GP attendances that incurred OOP costs is significantly influenced by MBS reforms. Changes to the MBS fee schedule and rebate structure have a direct impact on the amount reimbursed by Medicare and, consequently, the OOP costs borne by patients. From the introduction of Medicare in 1984 until 2000, there was a gradual decline in GP OOP rate, decreasing from 45% to 20%. However, in 2003 and 2004, the GP OOP rate increased to 31% and 28% respectively. Following the MBS reform in 2004, there was a subsequent decrease in GP OOP rate, dropping from 24% in 2005 to 14% in 2019 (Figure 7). During the COVID-19 pandemic the GP OOP rate was around 10% in 2020 and 11% in 2021. However, in 2022, the GP OOP rate increased slightly to 15%. The decrease in the GP OOP rate was linked to the introduction of telehealth items, which had to be bulk billed, as well as a temporary increase in the bulk billing incentive. The relationship between MBS reforms and the GP OOP rate underscores the importance of monitoring and evaluating the impact of policy changes on the affordability of GP services for individuals and the wider healthcare system.

Figure 7: GP OOP rate, by year



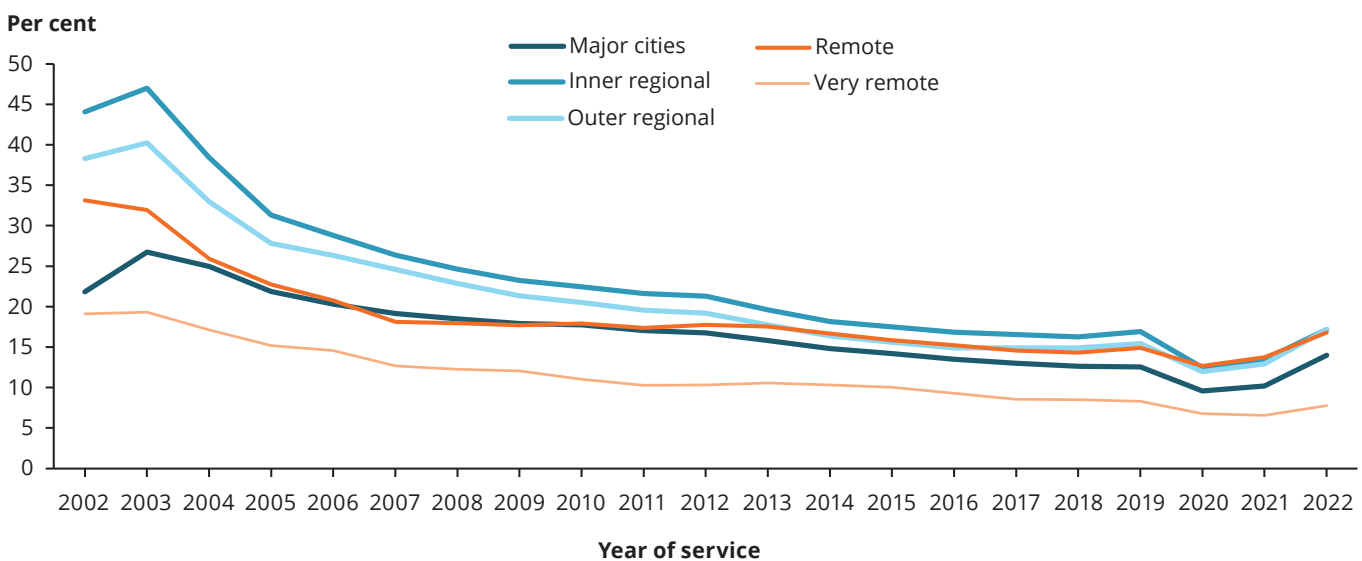
Source: AIHW analysis of MBS data, DoHAC 2023.

The GP subsidy rate is the percentage of fees covered by Medicare, while the OOP rate is the number of services which had an OOP costs. The GP subsidy rate has remained relatively steady over time while the OOP rate has decreased substantially. This is consistent with the increasing average OOP cost over time.

GP OOP rate by remoteness

The percentage of GP services incurring OOP costs varies across different remoteness areas. In *Major cities*, the GP OOP rate was higher compared to *Very remote* areas. In 2022, the GP OOP rate in *Major cities* was 14%, while in *Very remote* areas the GP OOP rate was 8%. For *Inner regional*, *Outer regional* and *Remote* areas the GP OOP rate was higher at approximately 17%. In 2022, all areas had an increase in GP OOP rate when compared to the rate in 2020 and 2021(Figure 8).

Figure 8: GP OOP rate, by year and remoteness

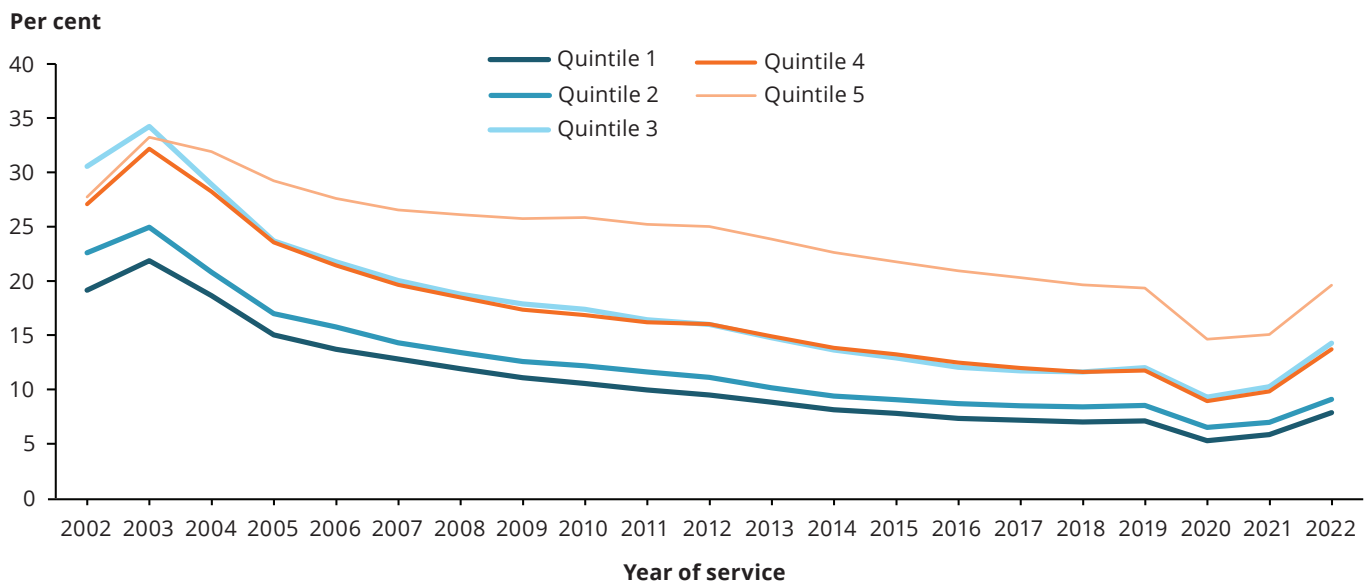


Source: AIHW analysis of MBS data, DoHAC 2023.

GP OOP rate by SEIFA

Individuals living in socioeconomically disadvantaged areas have the lowest GP OOP rate. Before the outbreak of the COVID-19 pandemic in 2019, in the most disadvantaged areas, the GP OOP rate was 7%, while in the most advantaged areas, it was 19%. During the pandemic in 2020, the GP OOP rate decreased slightly across all Quintiles, with the most disadvantaged quintile having a GP OOP rate of 5% compared to 15% in the most advantaged quintile. Following the pandemic in 2022, the GP OOP rate increased in all quintiles, with the most disadvantaged quintile having 8% of GP attendances with OOP charges compared to 20% in the most advantaged quintile (Figure 9).

Figure 9: GP OOP rate, by year and SEIFA



Source: AIHW analysis of MBS data, DoHAC 2023.

Measure 4: Average GP OOP costs

What does average GP OOP costs mean?

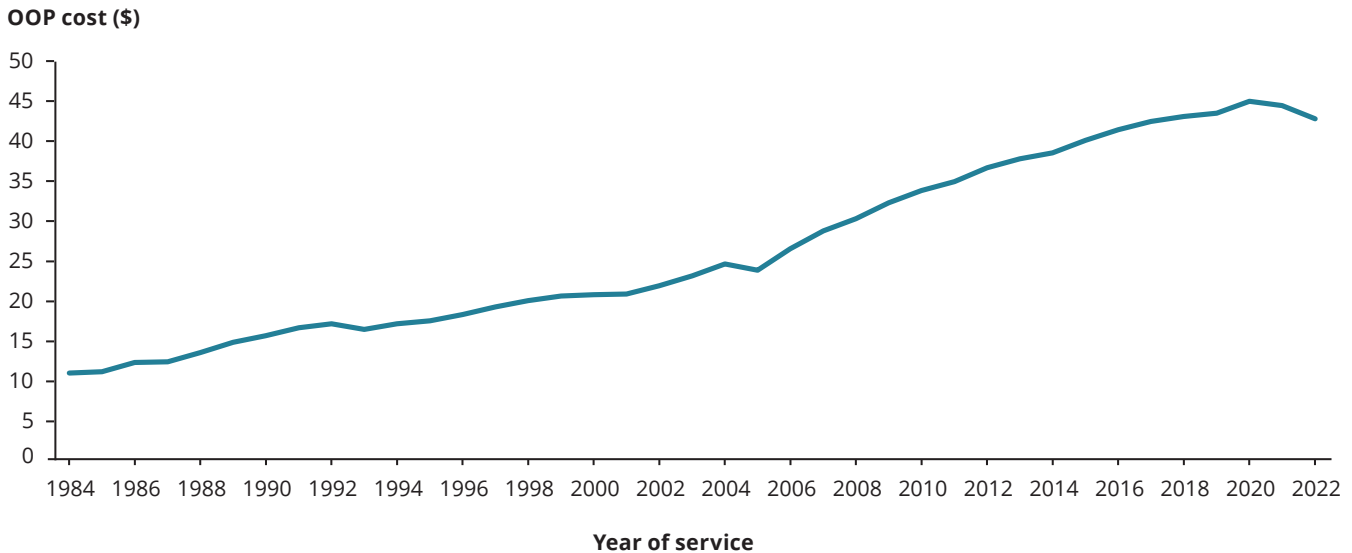
The average GP OOP costs refers to the average cost for those GP services that incurred a cost and is calculated using the following formula:

Average GP OOP costs = $\frac{\text{Sum of GP OOP costs borne by individuals in the time interval}}{\text{Sum of GP attendances that incurred OOP costs for the same time period}}$.

Out of pocket costs over time

In the instances where a patient has to pay an OOP fee for GP services, there has been an increase in the average OOP costs of these fees. Between 1984 and 2004, the average OOP costs increased by nearly 130%, rising from \$10.80 to \$24.52 (adjusted for inflation). In 2005, the average GP OOP costs was \$23.73. From 2006 to 2021, the average GP OOP costs continued to grow, reaching \$44.40 in 2021. However, in 2022, the average GP OOP costs decreased to \$42.72. Between 1984 to 2022 the average annual growth in the GP OOP costs was 3.68% (Figure 10). However, in the last 10 years from 2012 to 2022 the average annual growth in GP OOP costs was only 2.39%.

Figure 10: Average GP OOP costs , by year



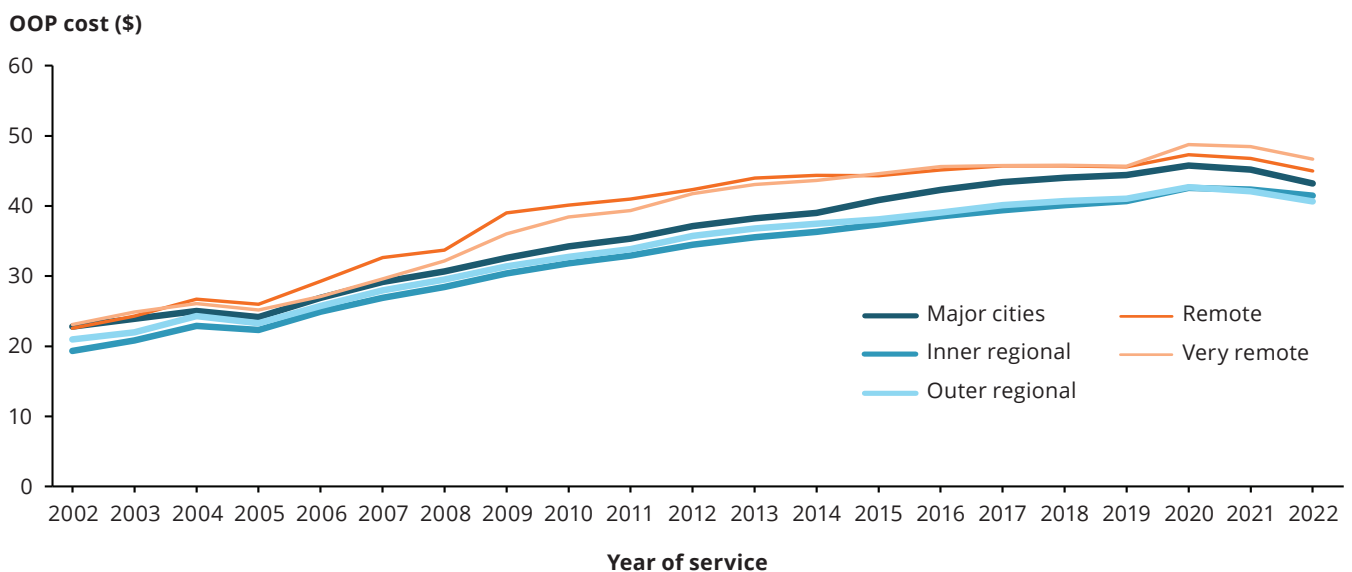
Source: AIHW analysis of MBS data, DoHAC 2023.

Average GP OOP costs by remoteness

Variation of OOP costs for GP attendances can be observed across different levels of remoteness. In *Major cities*, the average OOP costs per GP attendance is typically lower compared to *Remote* and *Very remote* areas. For example, in 2022, the average OOP costs per GP attendance was \$43.20 in *Major cities*, \$45.00 in *Remote areas*, and \$46.70 in *Very remote* areas (Figure 11). This suggests that individuals residing in more remote locations experience higher out-of-pocket costs when accessing GP services. Noting that this is only for those GP services where people paid an out of pocket cost and the percentage of people who do so are lower in remote areas.

In 2002, the average OOP costs for GP attendances in *Very remote* areas was only 1% higher compared to *Major cities*. However, in 2022, the average OOP costs in *Very remote* areas was 8% higher compared to *Major cities*. This indicates that over time, the OOP costs for GP services in *Very remote* areas have seen a larger increase compared to *Major cities*.

Figure 11: Average GP OOP costs, by year and remoteness



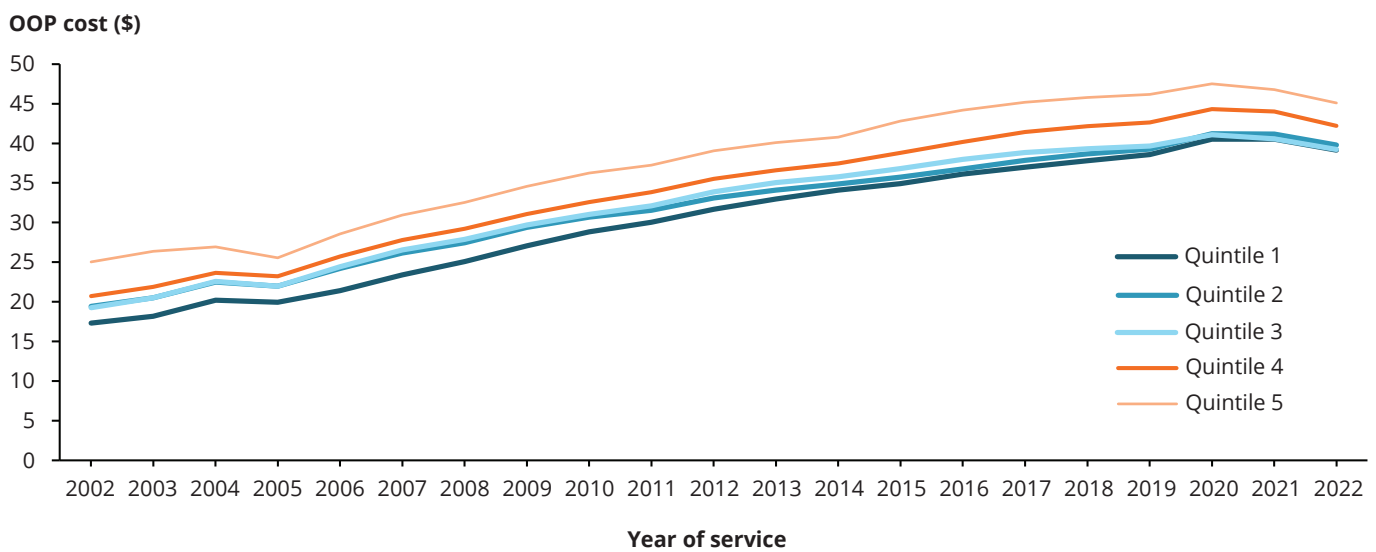
Source: AIHW analysis of MBS data, DoHAC 2023.

Average GP OOP costs by SEIFA

The average GP OOP costs for those GP services where people paid an out of pocket cost by SEIFA shows that people living in areas with lower socio-economic status tend to have lower OOP costs for GP services compared to those living in areas with higher socio-economic status. For example, in 2022, the average OOP costs per GP attendances for people living in the lowest SEIFA quintile was \$39.14, while for those living in the highest SEIFA quintile, it was \$45.11.

From 2002 to 2022, there was a higher increase in the average OOP costs for GP attendances in the most disadvantaged areas compared to the most advantaged areas. In the most disadvantaged areas, the average OOP costs increased by 126%, rising from \$17.31 to \$39.14 while in the most advantaged areas, the average OOP costs increased by 80%, from \$25.04 to \$45.11 (Figure 12).

Figure 12: Average GP OOP costs, by year and SEIFA



Source: AIHW analysis of MBS data, DoHAC 2023.

Measure 5: Average GP OOP costs for all services

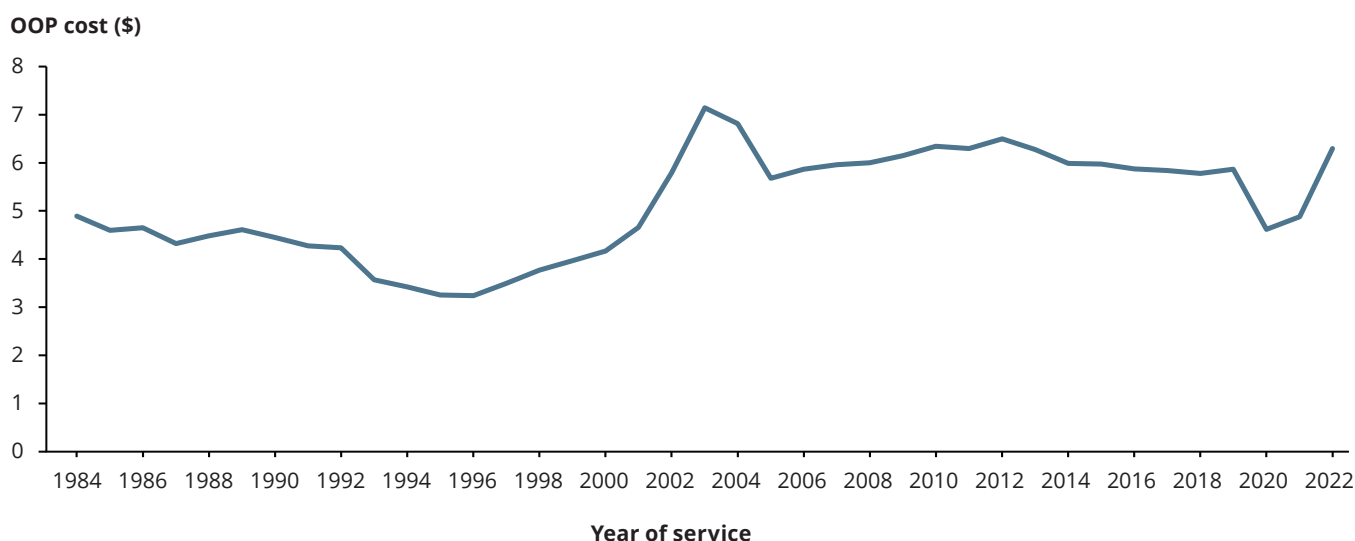
What does average GP OOP cost for all services mean?

The average OOP costs for all services refer to the average out of pocket costs averaged across all services including instances where services face no out of pocket costs and is calculated using the following formula:

Average GP OOP costs for all services = Sum of GP OOP costs borne by individuals in the time interval/Sum of all GP attendances for the same time period.

The analysis of average OOP cost per all GP services shows an increase in OOP costs from \$4.90 in 1984 to \$6.30 in 2022 (a 29% increase). Preceding the pandemic in 2019, the average OOP costs was \$5.90, while during the pandemic, the OOP costs dropped to about \$4.70 (adjusted for inflation, 2022 prices). However, in 2022 the average OOP cost rose to \$6.30 (Figure 13).

Figure 13: Average OOP costs per all GP services, by year

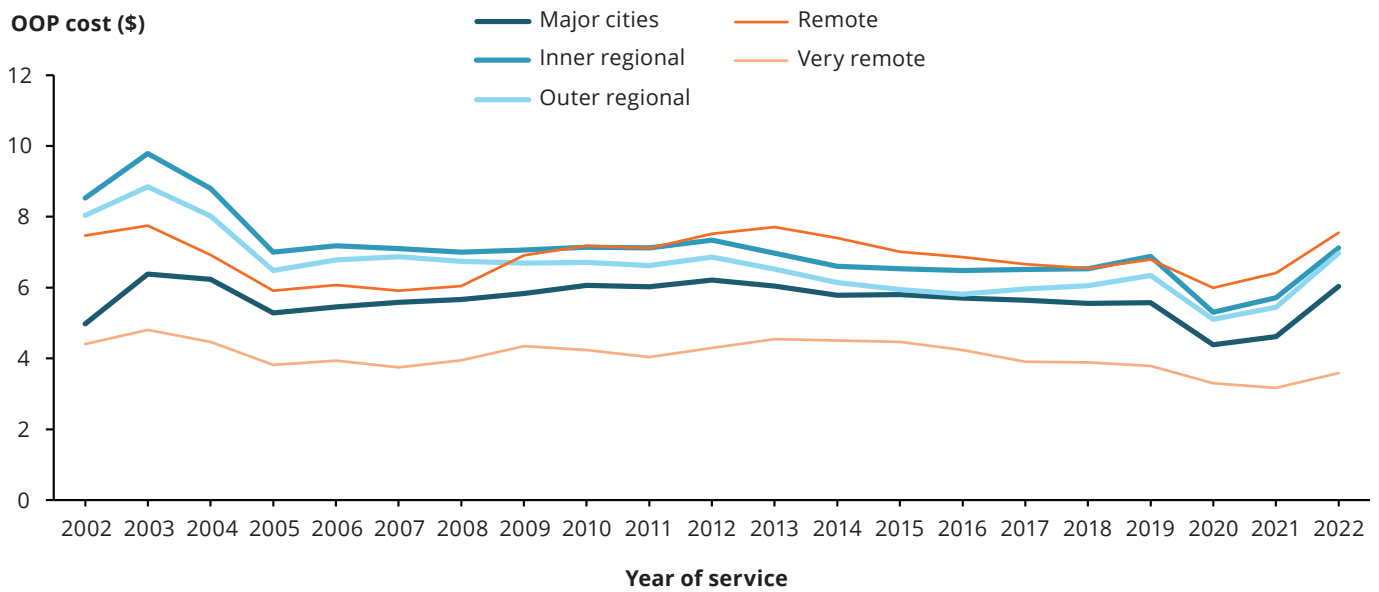


Source: AIHW analysis of MBS data, DoHAC 2023.

Average GP OOP costs for all services by remoteness

When comparing the average OOP costs per all GP attendances by remoteness, there were some differences across geographic areas. In *Major cities*, the OOP costs per GP attendance is typically lower compared to *Remote* and *Outer remote* areas, but higher than in *Very remote* areas. For instance, in 2022, the average OOP cost per all GP attendance amounted to \$6.04 in *Major cities*, \$7.55 in *Remote* areas, and \$3.59 in *Very remote* areas. From 2002 to 2022, the average OOP costs per all GP attendances in *Major cities* increased by 21% (from \$4.98 to \$6.04), in contrast the cost in *Outer regional* and *Very remote* areas has dropped by 13% (from \$8.04 to 6.97) and 18% (from \$4.41 to \$3.59) respectively (Figure 14).

Figure 14 : Average OOP costs per all GP services,by remoteness and year



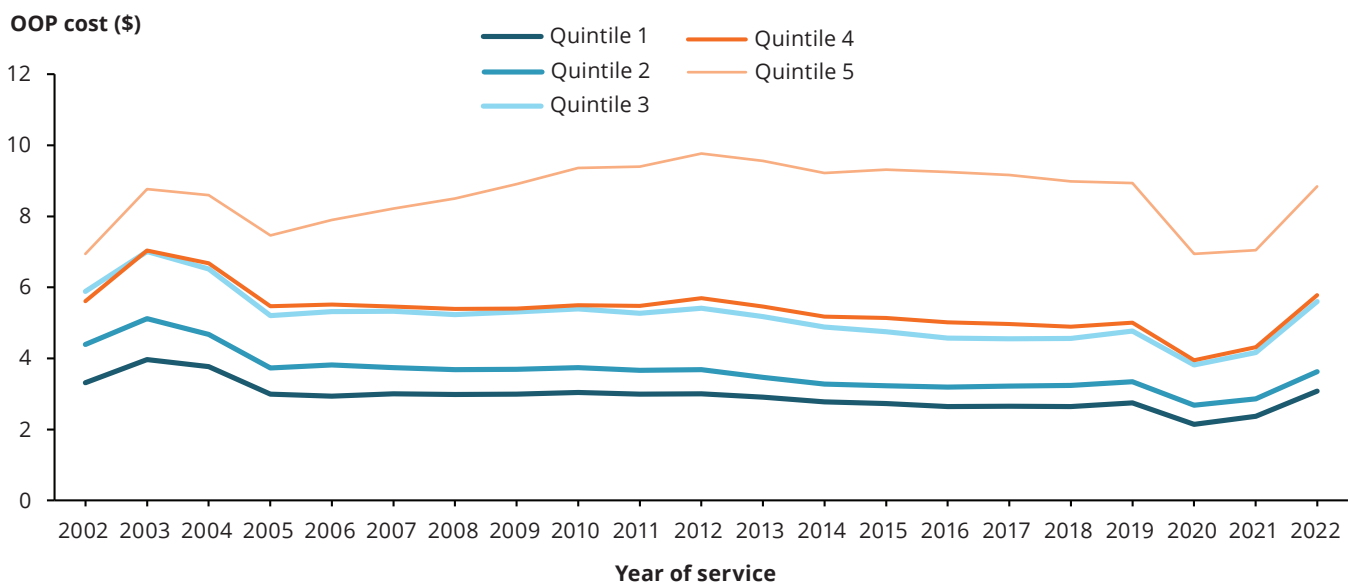
Source: AIHW analysis of MBS data, DoHAC 2023.

Average GP OOP cost for all services by SEIFA

The average GP OOP costs per all GP attendances by SEIFA shows that people living in areas characterised by lower socio-economic status generally incur lower OOP costs for GP services in comparison to those in areas of higher socio-economic status. For example, in 2022, the average OOP costs for individuals residing in the most disadvantaged areas was \$3.07, while for those in the most advantaged area, the cost was \$8.84.

From 2002 to 2022, in the most disadvantaged areas, the average OOP costs has remained relatively constant from \$3.31 to \$3.07, while in the most advantaged areas, the average OOP costs have increased by 27%, rising from \$6.94 to \$8.84 (Figure 15).

Figure 15: Average OOP cost per all GP services, by SEIFA and year



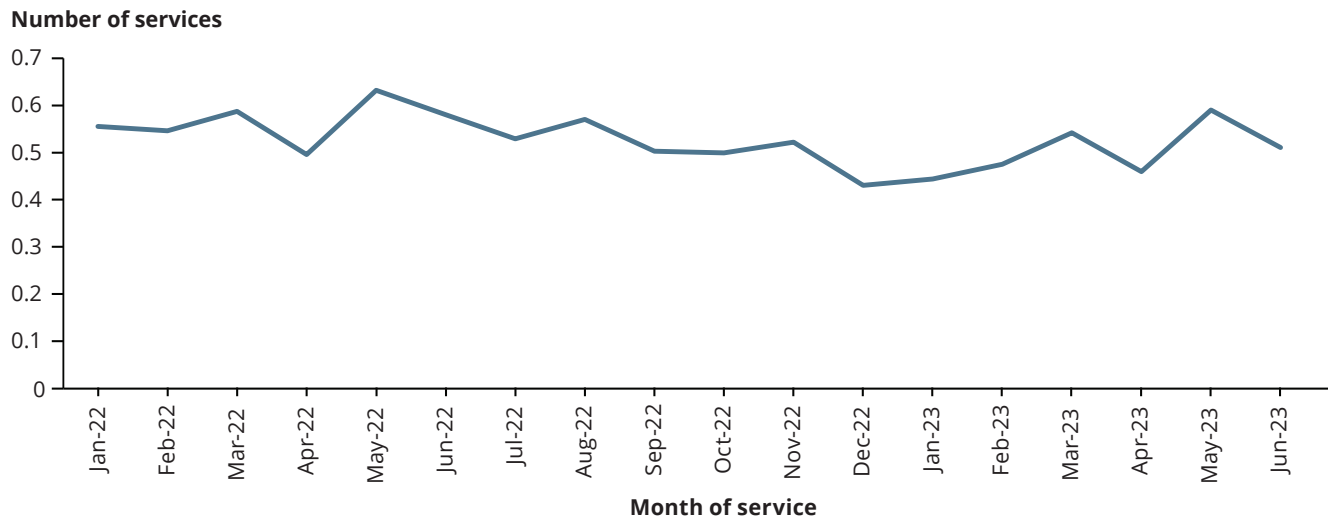
Source: AIHW analysis of MBS data, DoHAC 2023.

What was the trend in GP attendances and GP OOP costs in the first half of 2023?

Measure 1: GP services attendance rate

During the initial six months of 2023, the GP services attendance rate was approximately 3.2 GP attendances per person. This was lower than the GP services attendance rate in the corresponding period of 2022, which were 3.6 GP attendances per person (Figure 16).

Figure 16: GP attendances rate, by month

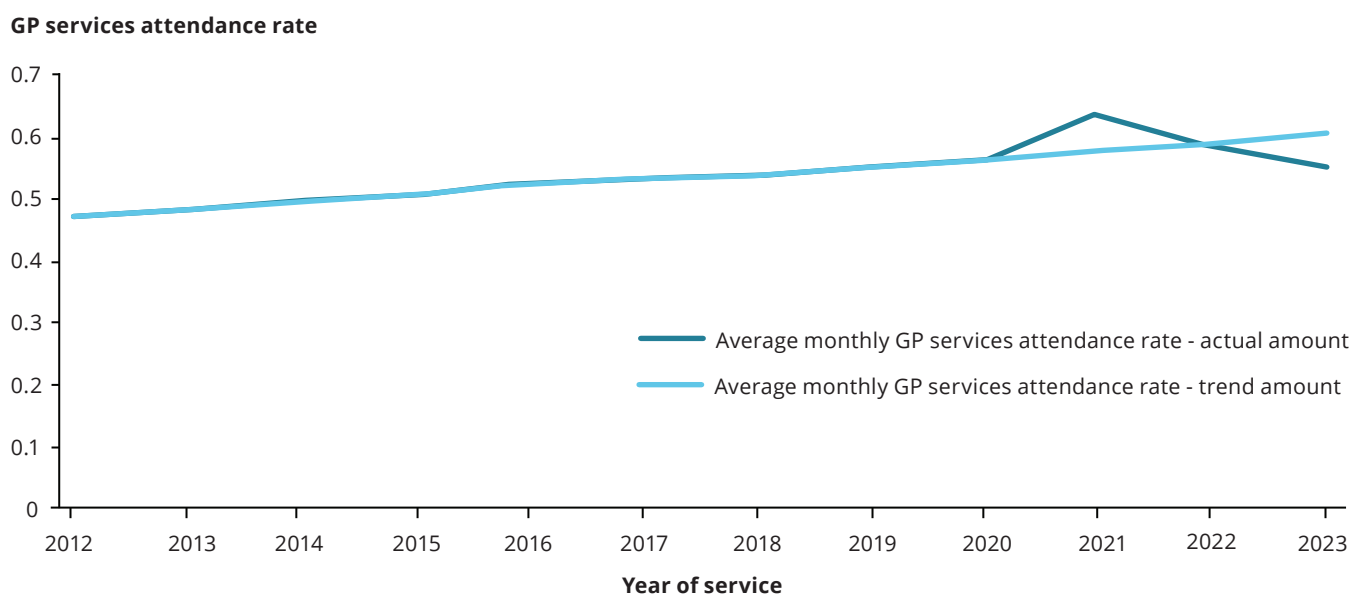


Source: AIHW analysis of MBS data, DoHAC 2023.

In both 2022 and 2023, the highest age-standardised GP services attendance rate occurred during the month of May, 0.63 in May 2022 and 0.59 in May 2023 .

In 2023, the actual quantity of GP services was lower than the pre-pandemic trend. While during the COVID-19 period, the actual amount of GP services was higher to the projected trend amount (Figure 17).

Figure 17: Average GP attendances rate, actual amount vs trend, 2012 to 2023

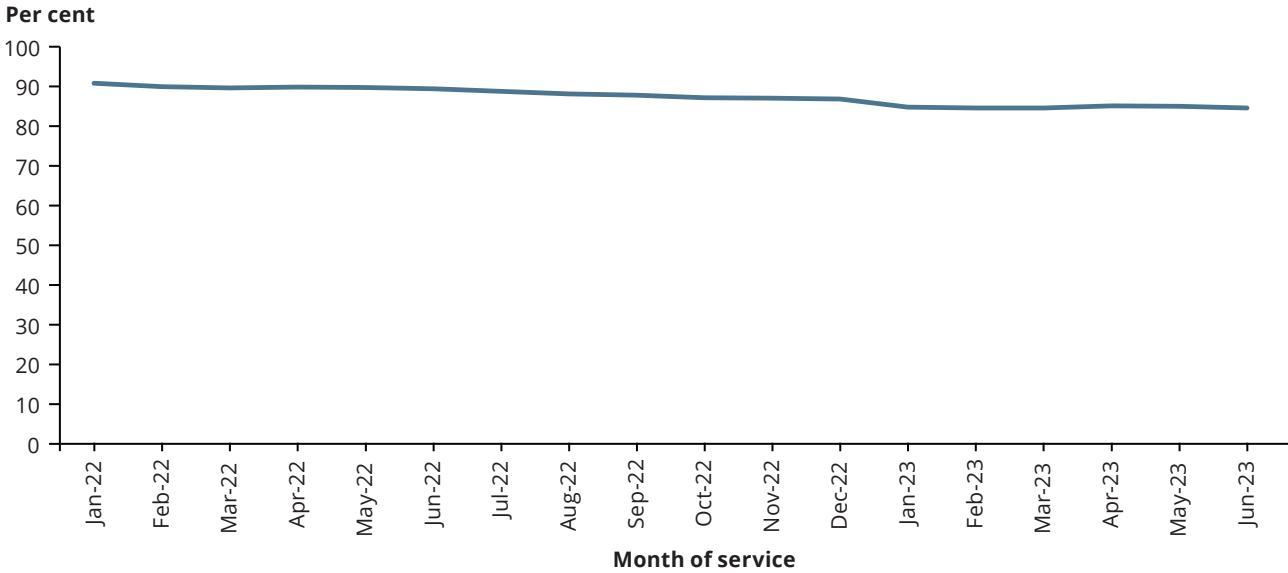


Source: AIHW analysis of MBS data, DoHAC 2023.

Measure 2: GP subsidy rate

From January 2022 to June 2023, there has been a gradual decline in the GP subsidy rate. During the initial six months of 2022 the average GP subsidy rate was 89.90%, while in the corresponding period of 2023 the average GP subsidy rate was 84.76% (Figure 18).

Figure 18 : GP subsidy rate by month

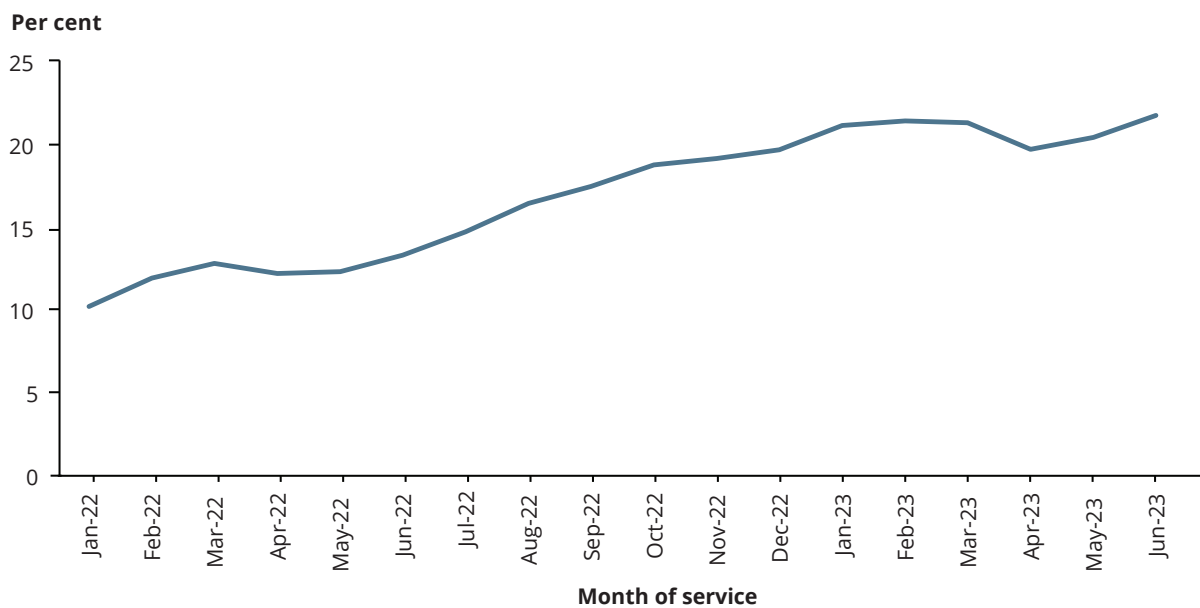


Source: AIHW analysis of MBS data, DoHAC 2023.

Measure 3: GP OOP rate

The proportion of GP attendances that incurred OOP charges continued to increase in 2023. When comparing the first half of 2022 to that of 2023, the average GP OOP rate has increased from 12.12% to 20.93% (Figure 19).

Figure 19: GP OOP rate, by month



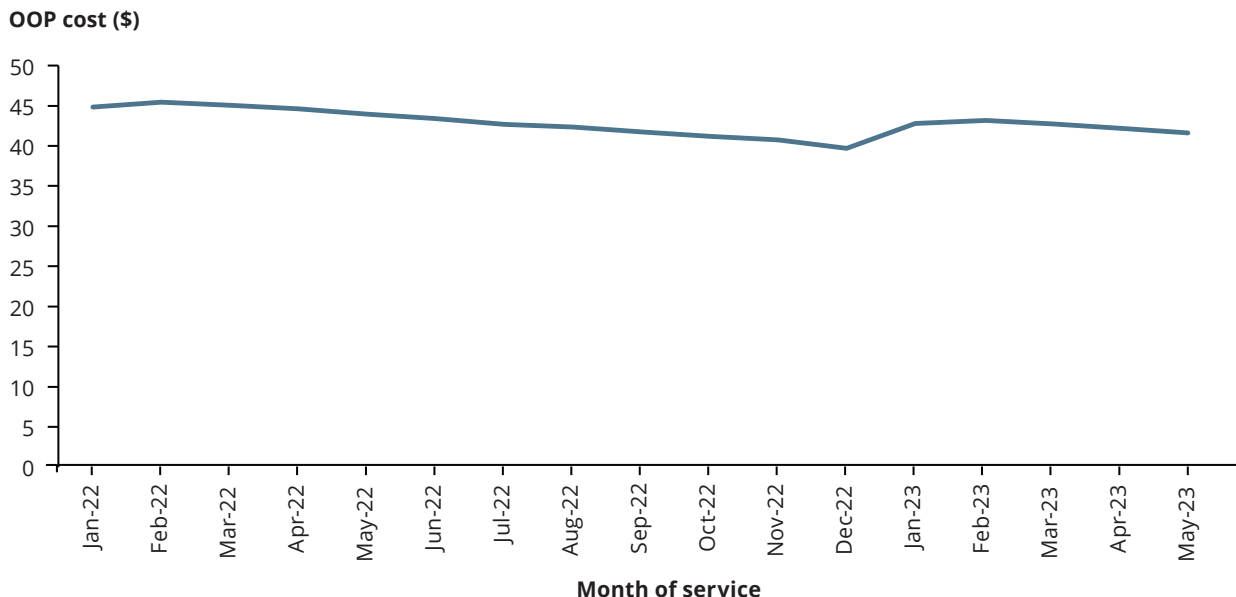
AIHW analysis of MBS data, DoHAC 2023.

Source:

Measure 4: Average GP OOP costs

Conversely, there has been a decrease in the average OOP costs per GP presentation. Between January to June 2022, the average OOP costs per GP presentation was \$44.54 compared to \$42.33 during the same period in 2023 (Figure 20).

Figure 20: Average OOP cost , by month

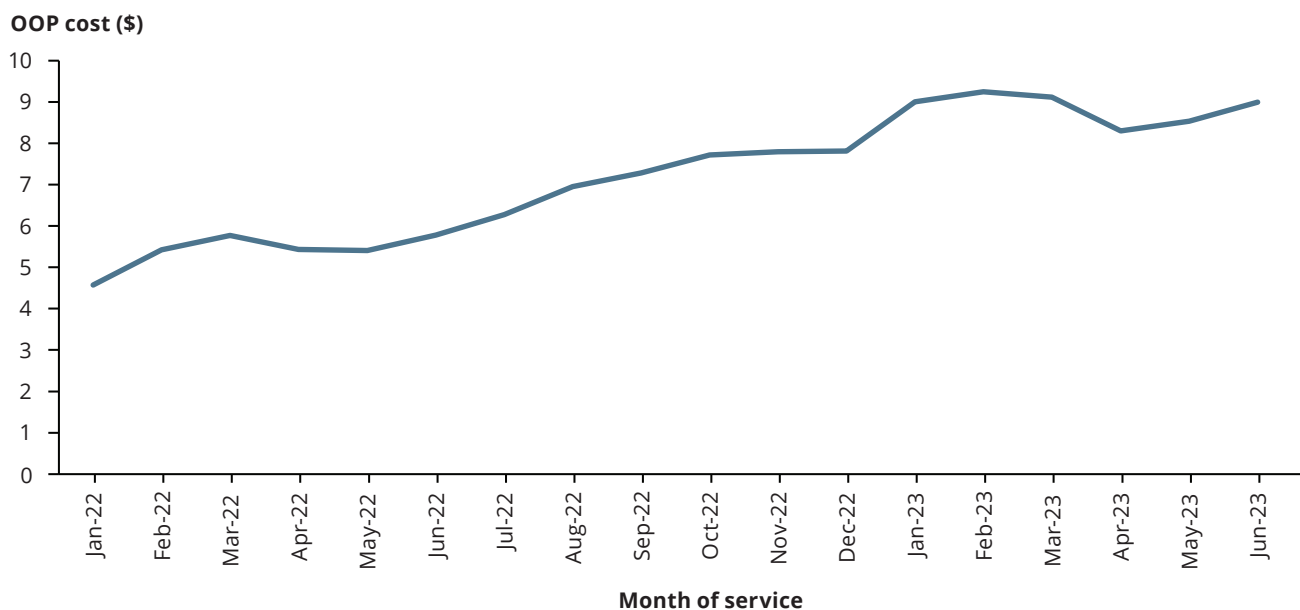


Source: AIHW analysis of MBS data, DoHAC 2023.

Measure 5: Average GP OOP costs for all services

However, when the average OOP costs was computed using all GP attendances as the denominator, there was an increase in average OOP costs from \$5.40 between January to June 2022 to \$8.86 in the corresponding period in 2023 (Figure 21).

Figure 21: Average OOP cost per GP (all services), by month



Source: AIHW analysis of MBS data, DoHAC 2023.

Factors which impact the GP services attendance rate

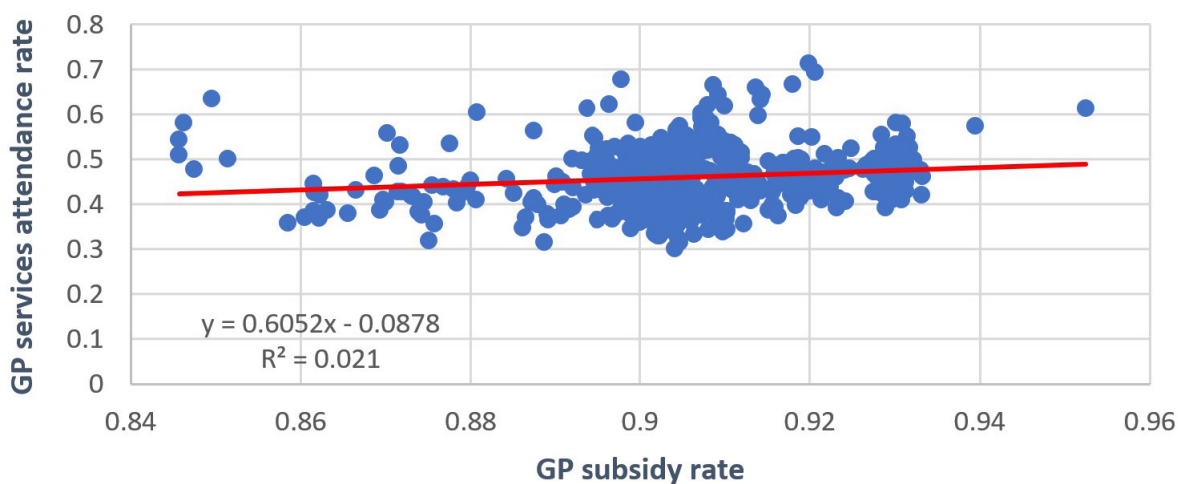
Regression Analysis

Regression analysis was conducted to investigate the relationships between variables. This analysis aims to quantify the strength and direction of relationships between variables; and whether changes in one variable are associated with changes in another. Using yearly and monthly data regression analysis was conducted to assess the relationship between GP services attendance rate and GP subsidy rate, as well as the association between GP attendance rate and GP OOP costs per all services.

What is the relationship between GP subsidy rate and GP services attendance rate?

Over the period 1984 to 2022 there appeared to be a weak positive relationship between the GP subsidy rate and GP services attendance rate, meaning the GP subsidy rate has a small impact on explaining the changes in GP attendance rate (Figure 22).

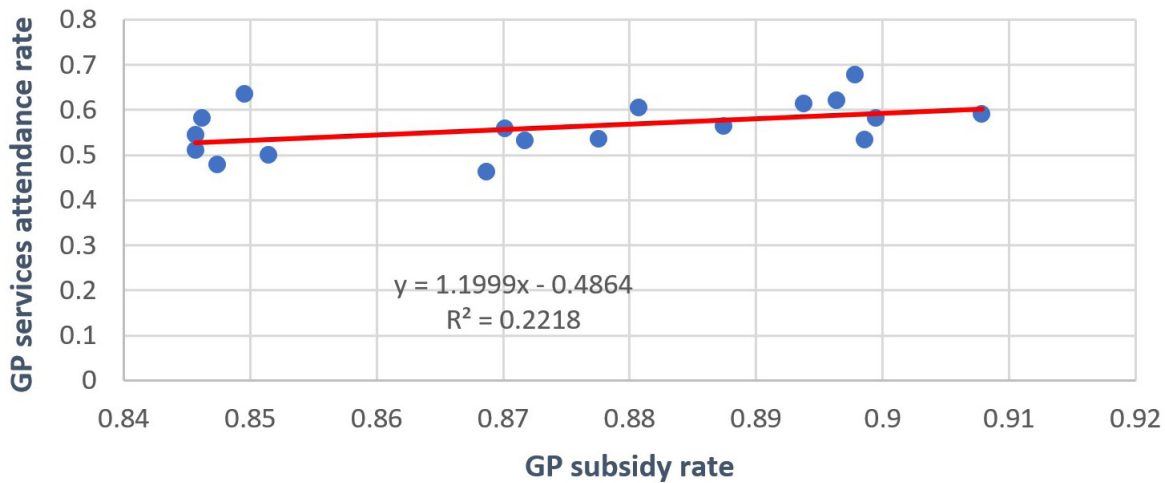
Figure 22: GP services attendance rate vs GP subsidy rate, 1984 to 2022



Source: AIHW analysis of MBS data, DoHAC 2023.

When analysing the relationship between GP subsidy rate and GP services attendance rate using monthly data from January 2022 to June 2023, there is a moderate positive linear relationship, suggesting that the GP subsidy rate is associated with the variations in GP services attendance rate. (Figure 23).

Figure 23: GP services attendance rate vs GP subsidy rate, 2022 to 2023

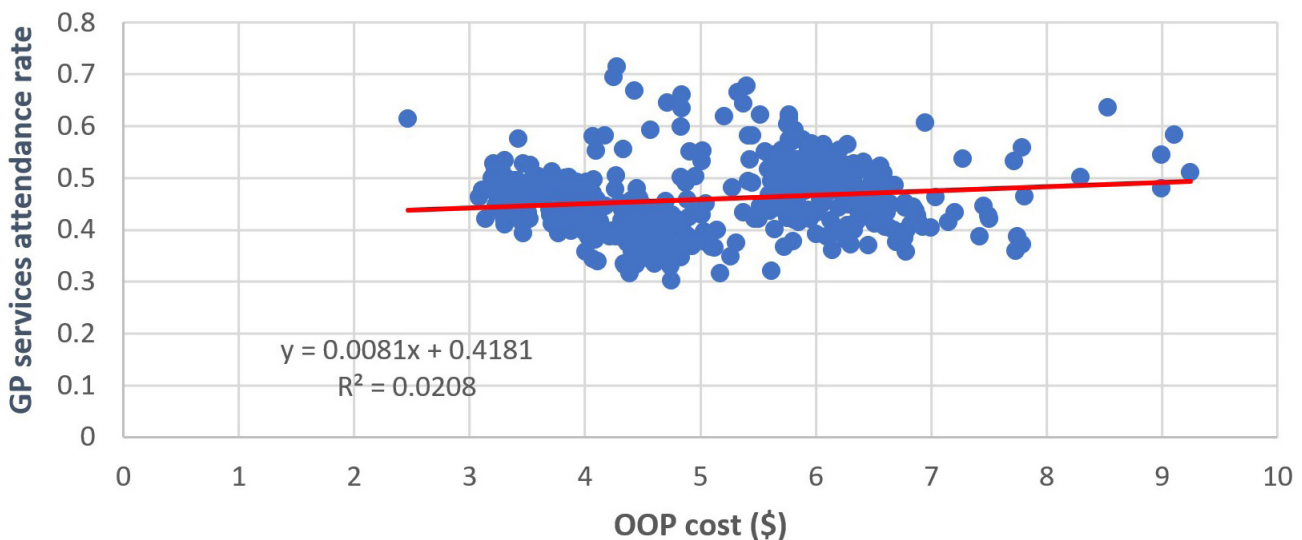


Source: AIHW analysis of MBS data, DoHAC 2023.

What is the relationship between GP OOP costs and GP services attendance rate?

From 1984 to 2022 there appears to be a weak positive linear relationship between GP OOP costs and GP services attendance rate (Figure 24). Over the long term, average incomes have increased faster than increases in OOP costs (AIHW 2022), which may explain why rising OOP pockets costs are not negatively correlated with GP attendance rates.

Figure 24: GP services attendance rate vs GP OOP costs (all services), 1984 to 2022

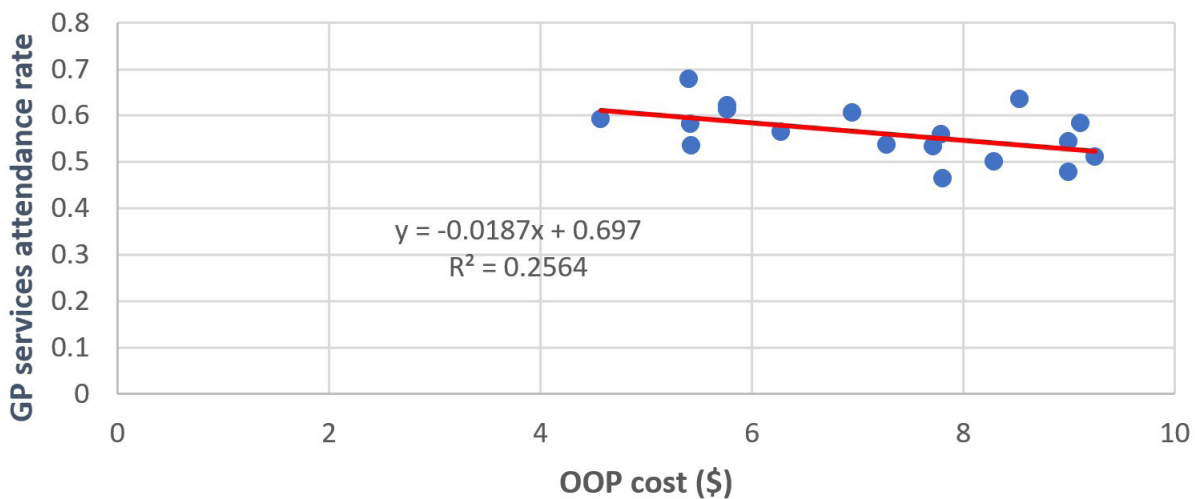


Source: AIHW analysis of MBS data, DoHAC 2023.

However, when analysing the relationship between GP OOP costs and GP services attendance rate using monthly data between 2022 and 2023, the equation suggests a moderate negative linear relationship between GP OOP costs and GP services attendance rate. This means as OOP costs increases, GP services attendance rate decreases (Figure 25). The moderate relationship between GP OOP costs and GP services attendance rate implies that while there is a noticeable trend, other factors might also influence GP services attendance rates.

Over the short term, the GP services attendance rate may be more sensitive to increasing OOP costs especially when there are other factors that impact on individuals discretionary income, such as rising inflation and interest rates, which has been the case in 2023.

Figure 25: GP attendance rate vs GP OOP cost (all services), 2022 to 2023



Source: AIHW analysis of MBS data, DoHAC 2023.

Local Government Areas (LGAs) and GP services attendance rate

This section aims to investigate whether particular LGAs had a disproportionate impact on GP attendances which dropped by 9.1% from 92.1 million to 83.8 million when comparing the first six months of 2022 and 2023.

Table 1 shows that the largest LGAs, by population, had the largest contribution to the change in GP attendances. For example, the LGA of Brisbane, which is the largest LGA representing 4.9% of the total Australian population, contributed around 5.0% to the drop in the GP attendances when comparing January to June in 2022 and 2023.

Beside population size, the impact on the change in GP attendances also appears to be influenced by the socio-economic conditions of the LGAs' population. For instance, the LGA Canterbury-Bankstown which falls into quintile 2 contributed to a greater decrease in GP attendances (2.2%) compared to its population size (1.4% of total Australian population). Conversely, LGA Unincorporated ACT, categorised as quintile 5, contributed to a smaller decline in GP attendances (1.4%) compared to the population size (1.8% of total Australian population). Similar pattern was observed for smaller LGAs.

Table 1: Percentage changes in GP attendances in the 10 most populated LGAs

LGA Name	LGA quintile	Number of GP attendances Jan to June 2022	Number of GP attendances Jan to June 2023	LGA percentage change in GP attendances (%)	LGA's contribution to change in GP attendance between 2022 and 2023 (%)	LGA's ERP as a proportion of total population (%)
Brisbane	5	4,165,864	3,749,482	-10.00	4.96	4.92
Gold Coast	4	2,555,573	2,335,243	-8.62	2.63	2.47
Moreton Bay	4	1,879,086	1,763,552	-6.15	1.38	1.89
Unincorporated ACT	5	1,252,910	1,136,888	-9.26	1.38	1.77
Blacktown	3	1,802,896	1,633,651	-9.39	2.02	1.56
Canterbury-Bankstown	2	1,599,614	1,412,383	-11.70	2.23	1.45
Casey	4	1,593,700	1,468,016	-7.89	1.50	1.44
Logan	2	1,455,355	1,325,672	-8.91	1.55	1.37
Central Coast (NSW)	3	1,329,529	1,211,622	-8.87	1.40	1.36

Source: AIHW analysis of MBS data, DoHAC 2023.

Technical notes /Method

Age-standardised population

Age standardisation population was calculated using the direct method and using 2001 as the standard year. The process of age standardisation involves applying a standard population distribution to the age-specific rates or proportions of the populations being compared. By doing so, the impact of differences in age distributions is eliminated, allowing for a more accurate comparison of rates or proportions between populations.

Adjusting OOP costs for inflation

To account for the impact of inflation over time, the Consumer Price Index (CPI) was used to adjust the nominal amount of OOP cost to their equivalent real value. This conversion from nominal to real values allows for more accurate comparisons of OOP costs across different periods. To calculate the real price of an item, the current price is divided by the CPI of the base year and then multiplied by 100. This provides an adjusted price that reflects the purchasing power of the currency in the base year. All OOP costs are expressed in 2022 prices.

Remoteness and socio-economic status

Remoteness Area (RA) was calculated for each Local Government Area (LGA) based on the RA with the highest population proportion for that LGA (for example, an LGA has 60% of the population in RA 0 and 40% in RA 1, the LGA will be considered to be RA 0). RA aggregates are then computed based on the assigned RA for each LGA.

For Socio Economic Indexes for Areas (SEIFA), a separate concordance was used to assign a SEIFA decile (which was converted to quintile) to each LGA. SEIFA aggregates are then computed based on the assigned SEIFA for each LGA. In this report we are referring to the Index of Relative Socio-Economic Disadvantage (IRSD).

References

AIHW (Australian Institute of Health and Welfare) (2023) 'Patterns in MBS services between 2001 and 2023 by socioeconomic area', AIHW website, accessed 17 October 2023. www.aihw.gov.au/reports/health-welfare-expenditure/mbs-funded-services-over-time/contents/patterns-by-socioeconomic-area

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Any enquiries about or comments on this publication should be directed to the Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, Tel: (02) 6244 1000, Email: <info@aihw.gov.au>.