GP Medicare billing data – what does it say about current health workforce policy?

The Australian Government has responsibility for general practitioner (GP) services.

Within the Department of Health, Health Workforce Division's remit includes improving the capacity and quality of Australia's general practitioners, and improving access to GP services for people living in regional, rural and remote Australia.

The annual Productivity Commission Reports on Government Services[i] give information about general practitioners, such as their number, age, gender, estimated working hours and distribution across the country. Recent investment has enabled Health Workforce Division to collate and analyse more data about GPs from different sources.

GP services are calculated into a GP full time service equivalent measure, which varies for GPs of different age and gender. Additional information is being made available for the first time regarding GPs' country of initial medical qualification and the services they provide other than consultations. Information about patients' age and gender is also reported. This additional data will provide government, educational and training organisations, service providers and academics better evidence on which to evaluate current policies and recognise where change is needed.

This document outlines:

- the methods used to collate and analyse the data about GPs
- the limits of the data and some potential pitfalls in interpretation
- the national GP workforce
- how the GP workforce varies per state or territory and by rurality according to the Modified Monash Model (MMM) classification
- the work done by GPs, according to Medicare Benefits Schedule (MBS) billing, in different areas of clinical practice
- where Australia's GPs received their primary medical degree
- the proportion of doctors working as GPs who have specialist general practitioner qualifications
- how the COVID-19 pandemic is affecting GPs' MBS services

These statistics will be considered in light of the following Australian Government policies, implemented by Health Workforce Division:

- 28.5% of commencing Commonwealth supported places at Australian medical schools are offered as bonded places; students who accept these places must work for defined periods in areas that need doctors [ii]
- The 2018 Stronger Rural Health Strategy re-emphasised the policy, introduced in 1996, that all doctors working as general practitioners should be training towards or have specialist qualifications in general practice [iii]

- 1,500 places on the Australian General Practice Training Program (AGPT) [iv] and 32 places on the Remote Vocational Training Scheme [v] are available each year. From 2021 there will also be up to 100 places on the Rural Generalist Training Scheme [vi].
- Over 50% of GP training in the AGPT must occur in rural areas (MM 2 to MM 7)
- International medical graduates (IMGs) and foreign graduates of accredited medical schools (FGAMs) can only access Medicare for work in Distribution Priority Areas (DPA) or Districts of Workforce Shortage (DWS) for their first 10 years after registration as a doctor in Australia.[vii] This usually means IMGs and FGAMs are restricted to work in rural areas.
- The Workforce Incentive Program Doctor Stream [viii]gives GPs financial incentives for work in rural areas, with payments scaled increasingly for more rural areas
- Jurisdictional coordination units facilitate the National Rural Generalist Pathway and increase the number of rural generalist GPs.
- GPs are supported to learn additional skills in areas such as anaesthetics or obstetrics, during training or after qualification, if their practice location requires those skills. GPs with such additional skills are supported to maintain these skills through the Rural Procedural Grants Program [ix] to attend professional development courses.

Methods used to analyse the data

The National Health Workforce Dataset (NHWDS) annual data collection is used for information on GP work hours (clinical and non-clinical) and practice location(s). The Medicare Benefits Schedule (MBS) dataset is used for GP numbers, demographics, and shows which patients GPs see where, and the services provided to these patients and claimed against MBS. Information from the Bettering the Evaluation and Care of Health (BEACH)[x] cohort study is used to understand how patient demographics and GP demographics affect GPs workload.

Initial analysis of the MBS data showed that doctors not working in primary care also claim GP item numbers. Their other billing identified them as non-GP specialists and so their billing data is now removed from the reports on GP services.

The GP Full Time Equivalent – Workforce (GPFTE) calculation reflects the primary care workload of Australia's GPs using:

- An estimate of how long GPs spend on each MBS item claimed
- GP and patient characteristics such as age and sex which were statistically significant in determining the duration of a consultation
- A GP's average non-billable time as reported in a sub-study of the BEACH dataset, including age and sex, as well as the age of their patient for each MBS claim, and
- Clinical time, comprising billable and non-billable time.

Where possible reports include the number of GPs (headcount) and their full time equivalent (GPFTE).

A full description of the new methodologies used by the Department can be viewed on the **Health Workforce Data** website.

Limits of the data and potential pitfalls in interpretation

The information is more comprehensive than previously available but it is still not a complete picture. GPs' work in hospitals, schools, prisons or for non-government organisations may not show. Similarly work funded through worker's compensation or motor vehicle accident insurance schemes is not included. The block funding to Aboriginal Medical Services and the Royal Flying Doctor Service means reduced MBS billing, but not less work by GPs in these settings. The National Medical Workforce Data Strategy, which is key to the draft National Medical Workforce Strategy, aims to rectify this by further increasing collation and sharing of workforce information.

The MBS provides specific item numbers for some aspects of care, but general items are used for most care. For example, GPs can complete mental health care plans for patients with anxiety or depression to seek subsidised care from psychologists. The MBS item number for the mental health care plan will show up in data as 'mental health care'. There is no specific item number for GPs to use if they manage patients with mental health conditions in consultations under 20 minutes duration. This mental health care is hidden within the general consultation items of the MBS. Using the claims for mental health care plans as a proxy for mental health care delivered by GPs will significantly under estimate how much mental health care GPs provide. GPs and their clinics also vary in their use of MBS.

Doctors fill in the National Health Workforce Data survey annually when re-registering with the Australian Health Practitioner Regulation Agency. There is no reason to suggest doctors systematically under or over record their hours of work, but relying on recall is a recognised source of potential error in surveys.

The national, state and territory general practitioner workforce

The total number of GPs has increased each year over the last six years, with a slowing in the last two calendar years (0.8% increase between 2019 and 2020). This overall increase is not even across the country. The number of GPs in New South Wales (NSW), Western Australia (WA), South Australia (SA) and the Australian Capital Territory (ACT) decreased over the most recent period (2019 to 2020) however WA and ACT had an increase in GP FTE. In the Northern Territory (NT), the number of GPs has been decreasing since 2017. This matches concerns from the NT about their future GP workforce[xi].

The number of GPs in MM 3-5 and MM 7 areas decreased over the most recent period (2019 to 2020). In MM 6 areas, the number of GPs has been decreasing since 2018. Similarly, MM 5 had a drop in headcount but an increase in GP FTE; the latter could be due to these GPs' extended scope of practice showing in the data for the first time.

The proportion of doctors working as GPs who have specialist GP qualifications

An increasing proportion of doctors working as general practitioners have specialist GP qualifications. In 2014 there were 5,581 (17%) non-vocationally recognised (non-VR) GPs out of a total GP workforce of 32,739. In 2020 the number of non-VR doctors had decreased by 1715 to 3866 (10%) out of a total GP workforce of 37,785.

This change is in line with the Australian government policy to support all doctors working as GPs to gain specialist qualifications[xii]. Non-VR doctors are encouraged to apply for training with the Australian College of Rural and Remote Medicine (ACRRM) or the Royal Australian College of General Practitioners (RACGP), through fully funded or subsidised programs[xiii]. All doctors working as GPs are expected to have specialist qualifications by June 2023. Consideration will be needed regarding the role of doctors who are unable to, or choose not to, gain GP qualifications. This is important as the non-VR doctors still outnumber GP trainees. Whilst there are clear controls on the number of GP training places, the same is not true for non-VR doctors who are willing to work in less popular jobs and locations.

The GP registrar workforce

Doctors learn to become GPs through work providing patient care as registrars in supervised general practice. In 2020 GP registrars were just under 10% of the GP workforce (3,774 out of 37,780). The total number of GP registrars billing Medicare increased from 2,830 in 2014 to 3,774 in 2020, with a peak in 2019 of 3,916.

Since 2015 there has been a reduction in the number of eligible applicants to the AGPT and an increase in the number of positions remaining vacant after final acceptances. In 2015 a total of 66 places were unfilled; this number increased to 164 in 2020, with over 100 of these positions being in rural, regional and remote Australia.

The Government's policy that over 50% of GP registrars work in MM 2-7 areas, means that GP registrars form a higher proportion of the workforce in rural areas. Thus the drop in registrar numbers between 2019 and 2020 has preferentially affected rural areas. The Department is undertaking supply and demand work to establish the need for GPs in the future. Rather than it being a concern that not all training places are filled, it could be that lower numbers of places and better distribution is needed.

The location of primary medical qualification for Australia's GPs

More of the doctors claiming GP items for the first time between 2014 and 2020 studied overseas for their primary medical degree (n=2,984) than in Australia or New Zealand (n=2,062). The proportion of GPs working in Australia who did their primary medical degree in Australia or New Zealand dropped from 61% in 2014 to 58% in 2020.

The calculations of the GP full time equivalent (GPFTE) also show differences between Australian or New Zealand graduates and those from other countries. Over the last six years (between 2014 and 2020) the GPFTE for IMGs has grown faster (4.3 per cent) than for Australian/New Zealand trained graduates (1.6 per cent). The GPFTE for IMGs has increased from 48.2 per cent of total GPFTE in 2014 to 52.0 per cent in 2020 and is linked to a significant increase in IMG GPFTE across MM 1 and MM 2. This is consistent with IMGs going to the least rural locations allowable under the 10-year moratorium, i.e. MM 2, and that the short-term increase in services they provide leads to longer term increases in services in urban areas (MM 1) once IMGs are free from their rural restrictions.

The age of the GP workforce

The change in the age composition may indicate risks to the GP workforce. The continued increase of older GPs (aged over 65 years) accompanied by a decrease in younger GPs (aged under 40 years) means that overall the GP workforce is slightly older than previously, with GPs who are over 65 now comprising 15.0%. There will be significant impacts on the workforce if these older GPs retire or reduce their workload. Policies that encourage younger doctors to pursue careers in general practice are needed, and a suite of recommendations is made in the draft National Medical Workforce Strategy[xiv].

Gender ratios

The proportion of GPs who are female has increased from 43.5 per cent in 2014 to 47.7 per cent in 2020. Between 2019 and 2020, the GPFTE for female GPs increased 0.8 per cent and decreased 2.9 per cent for male GPs. Female GPFTE has increased from 35 per cent of total GPFTE in 2014 to 40 per cent in 2020.

The GPFTE for female GPs decreased in Victoria, South Australia and the Northern Territory from 2019 to 2020. In 2020, GPFTE for female GPs as a proportion of total GPFTE was highest in the Australian Capital Territory (48.7 per cent) and lowest in South Australia (37.5 per cent). Between 2019 and 2020, the GPFTE for female GPs decreased in MM 3, MM 4 and MM 6, while MM 3 was the only area to show an increase in the GPFTE for male GPs.

The work done by general practitioners, according to MBS billing, in different areas of clinical practice

Medicare billing data is categorised into Broad Types of Service (BTOS). Examples of broad types of service are non-referred attendances, anaesthesia, pathology, diagnostic imaging, obstetrics and surgery. Previously only claims by GPs for non-referred attendances such as consultations and enhanced primary care items were reported. In this report claims, made by GPs in any BTOS that can be provided in primary care are documented for MM 1-7.

In MM 3-7 GPs also provide hospital services that would be provided by other discipline specialists in urban areas. These extra MBS items that require hospital facilities are added to GP FTE if it is clear from their other billing data that the doctor also provides primary care.

Thus GPs' broad roles and contribution to areas such as obstetrics, anaesthetics and skin cancer surgery are identified in reports on GP services for the first time. Where possible the data is reported as GPFTE primary care or GPTFE all services.

Including all MBS claims by GPs, not just non-referred attendances increases the calculated full-time equivalent hours worked by GPs. This is not an actual increase. This work has been being done by GPs, but was not identified in statistical reports as being done by them.

GPs with procedural skills are identified as a group by searching for doctors who claim MBS items that can only be done by after extra training, such as caesarean sections. There were 390 such doctors in 2014 and 451 in 2020. The increase in Tasmania from small number in 2017 to 13 in 2020 coincides with their introduction of

a rural generalist pathway. As noted in the limitations section, this is likely to underrepresent GP hospital and procedural work as this may be state funded rather than MBS funded.

In future years it will be possible to document trends in the volume of GPs' work in different broad types of service. This is relevant to the investment in training more rural generalists, who have the skills to work in primary care, provide emergency services and care in one other discipline usually provided by specialists in secondary care in urban areas. Rural generalists should increase the volume of MBS claims against different BTOS in rural and remote areas. However, not all rural generalists claim against MBS. Those employed by state hospitals or the Royal Flying Doctor Services are paid through different mechanisms. A complete picture of the workload of rural generalists would also require access to data from other organisations, as is planned in the National Medical Workforce Data Strategy.

Year on year data will also show the comparative time GPs spend consulting and on other broad types of service. For example, anecdotally more GPs are focusing on skin cancer medicine and the data may show if this increasing sub-specialisation of generalists is occurring.

How the general practitioner workforce varies by rurality according to the Modified Monash Model (MMM) classification

Regionally, the number of GPs in MM 3-5 and MM 7 areas decreased over the most recent period (2019 to 2020). In MM 6 areas, the number of GPs has been decreasing since 2018.

This decrease is a major concern, as the current policy settings are designed to train doctors in rural areas and retain them once qualified. It is not possible to say what level of decrease might have occurred without these policies, but even so, it suggests that major new investment and innovations are needed to boost the rural GP workforce.

The same pattern of decreased rural GP workforce is seen in Queensland as in other states. This is despite their considerable success in training rural generalists who work across primary and secondary care. If the same pattern occurs nationally, as has occurred in Queensland, the investment in the National Rural Generalist Pathway will assist with numbers of the doctors providing important primary and secondary care from rural hospitals. Policies and systems will need to encourage these doctors to provide the longitudinal and preventive care that contribute to the cost-effectiveness of primary care.

How COVID-19 is affecting general practitioners MBS billing

The COVID-19 pandemic has changed GPs' work. In March 2020 telehealth item numbers were expanded to enable virtual care and reduce the risks of the disease spreading via face-to-face contact. Previously telehealth item numbers were available for specific circumstances, such as improving access to care for patients in rural and remote areas. In October 2020 these items new numbers were limited to being claimed by patients' usual GP practice unless an area was declared a COVID-19 hotspot.

In 2019 GPs claimed 0.05 million MBS telehealth items. In 2020 this increased very significantly to 36.96 million. This corresponds with a decrease in standard consultations from 100.86 million in 2019 to 77.99 million in 2020.

The number of GPs increased from 37,472 in 2019 to 37,785 in 2020. However, the number of trainees and non-VR GPs decreased from 3,916 to 3,774 and 4,003 to 3,866 respectively. Anecdotal reports are that some practices closed but their number or location is not published. As already mentioned, the reduction in non-VR GPs was planned. The unplanned reduction in GP registrars due to decreased applications to the specialty was compounded by a small number of GP registrars having to leave their practices because there was insufficient patient load or for other personal reasons.

Despite the overall increase in GP numbers, their calculated GPFTE dropped 1.5% from 29,854 in 2019 to 29,419 in 2020, after years of successive growth. This has several potential causes. Some GPs switched to work some sessions in state government roles in public health or respiratory clinics, and some took leave because of their own health or the need to care for family members during lockdowns.

Cancellation of elective surgery led to a reduction in GPs' provision of anaesthetics and assistance at operations which is seen in reduced claims against these BTOS items. Attendances to GP surgeries for management of chronic disease reduced, whilst anecdotal reports are that GPs non-billable and non-clinical time increased with the extra administration required for telehealth and for learning about and preparing practices and staff for changing local restrictions and guidelines.

Reduced intrastate and interstate travel due to COVID-19 may have caused the reduction in the number of GPs working in New South Wales, Western Australia, South Australia and the Australian Capital Territory, and in MM 3-6 and MM 7 between 2019 and 2020. In the Northern Territory, the number of GPs has been decreasing since 2017 so this is less likely to be just due to COVID-19. Next year's data is likely to show even greater national changes combined with more regional variability as different regions instituted lockdowns to control the pandemic.

Implications for future policies

The partial picture provided by GPs' MBS billing needs to be completed with data from the GPs' non-MBS work. This is planned through the National Medical Workforce Data Strategy, and agreements to share data between organisations.

Investment in the recommendations in the draft National Medical Workforce Strategy to promote general practice as first choice of career for Australian graduates is needed. Work is already underway for one recommendation which is paid parental leave for GP registrars. The 2021 ANZ Melbourne Institute Health Sector report, which includes information on specialty choice, highlighted that the increased differential pay between GPs and other specialties contributed to the lack of doctors putting general practice as their first choice.xv

The incentives and policies to increase rural and remote work by GPs have not led to equitable provision of services across the country. It could be concluded that these incentives are ineffective, but it is likely that the maldistribution would be much worse if these policies were not in place. Work is needed on what other policies and quantum of incentives could redress the current imbalance.

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