

3 General practice workforce and workload

Janice Charles, Helena Britt, Christopher Harrison

3.1 General practice workforce

Background

General practitioners (GPs) are the first port of call in the Australian health care system. In 2007–08, they claimed about 109.5 million items of service through Medicare¹ and provided an estimated additional 5.4 million services that were paid from other sources, such as workers' compensation and state governments, or were not charged for at all.² About 88% of the Australian population of about 21 million people visited a GP at least once in 2005–06 (Medicare claims data supplied by Australian Government Department of Health and Ageing). In 2006, there were just under 23,000 primary care practitioners working in Australia, equating to 97 full-time equivalent practising primary care/general practitioners per 100,000 people.³

The characteristics of general practitioners have been shown to influence general practice activity.⁴ A direct relationship exists between physicians' practice style and their age, the size of their practice and whether they have general practice postgraduate qualifications.⁵

Research in Australia supports the claim that GP age affects manner of practice, for example younger GPs have significantly shorter consultations than older GPs⁶, and are significantly more likely to use computers for clinical purposes.⁷ Older GPs provide more home and residential aged care facility visits, manage more chronic problems, have higher prescribing rates and lower rates of pathology ordering than young GPs.⁸

There are other ways in which patient population and mode of practice have been found to vary with GP demographics.

- Seventy per cent of encounters with female GPs are with female patients. Female GPs hold longer consultations (15.85 minutes on average compared with 14.3 minutes for male GPs), write more prescriptions, and manage more female-specific conditions and psychosocial problems.⁹
- Patient age mirrors the age of GP – almost two-thirds of patients visiting GPs younger than 35 years are themselves younger than 45 years. GPs in the oldest age group see patients aged 65 years and older at more than double the rate of the youngest GPs. As age of GP increases, the proportion of their workload spent with Commonwealth concession cardholders and non-English-speaking background patients also increases.⁸
- A recent examination of GPs' postgraduate qualifications found that after adjustment for practitioner, practice, patient and morbidity differences, Fellows of the Royal Australian College of General Practitioners (FRACGP) had longer consultations. They also undertook more procedures and prescribed fewer medications than their non-FRACGP counterparts.¹⁰

- The clinical activity of international medical graduates (IMGs), also known as overseas trained doctors (OTDs), was investigated. When a group of self-selected IMGs was compared with FRACGPs, it was found that IMGs were significantly younger and less experienced, worked more sessions per week and were more likely to be located in Regional and Remote areas. They saw fewer children and elderly patients but significantly more new patients, Commonwealth concession cardholders and Aboriginal and Torres Strait Islander people. They provided more medications and ordered more pathology.¹¹

Overview

Characteristics of GPs and changes that have taken place in the composition of the GP workforce need to be taken into account when attributing causes to changes in morbidity and treatment identified in BEACH data.

A vocational register for GPs was introduced in October 1989 through which qualified and experienced GPs could provide services attracting higher Medicare rebates. A 'grandparent' clause was attached which allowed GPs with more than 5 years' experience to join with no further training. A 5-year period of grace allowed younger GPs to acquire the requisite 5 years' experience to qualify for vocational registration via the grandparent clause.¹² In 1994, legislation was passed to reflect the end of the grandparent period, and to define future eligibility for vocational registration as being GPs who undertook vocational training that resulted in the attainment of Fellowship of the RACGP.¹³ The RACGP continued to provide this training until 2000 when the General Practice Education and Training organisation took it on and expanded it as the Australian General Practice Training Program. Only vocationally registered GPs could claim higher Medicare rebates (A1 items) for their consultations, with the proviso they take part in continuing medical education and quality assurance programs.

In 1995, a cap of 400 places was imposed on the GP training program, reducing intake from an average of 670 per year in the early 1990s.¹⁴ At the same time, compulsory vocational registration for GPs made postgraduate training a requisite for new medical graduates to become GPs. Although the cap was raised in subsequent years, the Australian Medical Workforce Advisory Committee calculated that by 2002 there was a shortage of GPs in the range of 800 to 1,300, due to increased demand, uneven distribution, decreased working hours and an ageing GP population.

Measures to tackle the shortage of GPs have included:

- the introduction of Australian and state government programs to attract IMGs to fill general practice positions, particularly in rural and remote areas where there is the greatest need. The Australian Medical Workforce Advisory Committee report of 2005 estimated that IMGs accounted for about 25% of the total medical workforce at that time in Australia¹⁵
- the GP Links program of 1999, in which the Australian Government offered financial incentives for smaller practices to amalgamate on the assumption that services would be provided more efficiently¹⁶
- the opening of several new medical schools and the increase in university places for medical students at existing schools. However, since the late 1990s an increasing proportion of medical school places have been dedicated to graduate students, leading to older registrars in GP training who are more likely to have commitments that influence

their choice of practice location and hours of work. Seventy-five additional training places for the 2009 intake to the Australian General Practice Training Program and 100 for 2010 were created, bringing the number of entry places for 2009 to 675 and to 700 for 2010. In previous years, there were fewer applicants than training places, but in 2008 almost all places were filled, and in 2009 it is projected that all places will be filled.¹⁷

- the introduction of Medicare item numbers that allowed GPs to claim for specified tasks done by a practice nurse under the direction of the GP. By 2007, seven such items could be claimed.

Characteristics of Australian GPs

The Australian Medical Workforce Advisory Committee reported in 2005 that in 2002 there were about 23,000 GPs in Australia, and more than 80% of the workforce was vocationally registered. Forty per cent of GPs were aged under 45 years and 27.8% were aged 55 years and over. More than one-third (37.0%) was female, and female GPs worked an average 13.6 fewer hours per week than did male GPs.¹⁵

The Medical Labour Force 2006 report confirmed the age and gender distribution of GPs, and found a decrease in the supply of full-time-equivalent primary care practitioners from 101 per 100,000 head of population in 2002 to 97 per 100,000 in 2006. Also reported was a decrease in the proportion of primary care practitioners who worked 50 hours or more per week from 35.2% in 2002 to 27.9% in 2006.³

A study of GP services found there had been an 8% decline in the average number of services provided per GP between 1997–98 and 2003–04: young cohorts of GPs provided fewer services on average than previous young cohorts, and middle-aged GPs, particularly middle-aged male GPs, had reduced the number of services they provide.¹⁸ Other researchers have also found 'generation X' GPs are working fewer hours than the 'baby boomers' did at the same age.¹⁹ This may reflect an overall trend towards part-time work in the labour force as a consequence of changes in the economy and society. For example, the proportion of employed people aged 24–44 years working part-time increased from 17% to 23% between 1983 and 2003.²⁰

BEACH participants

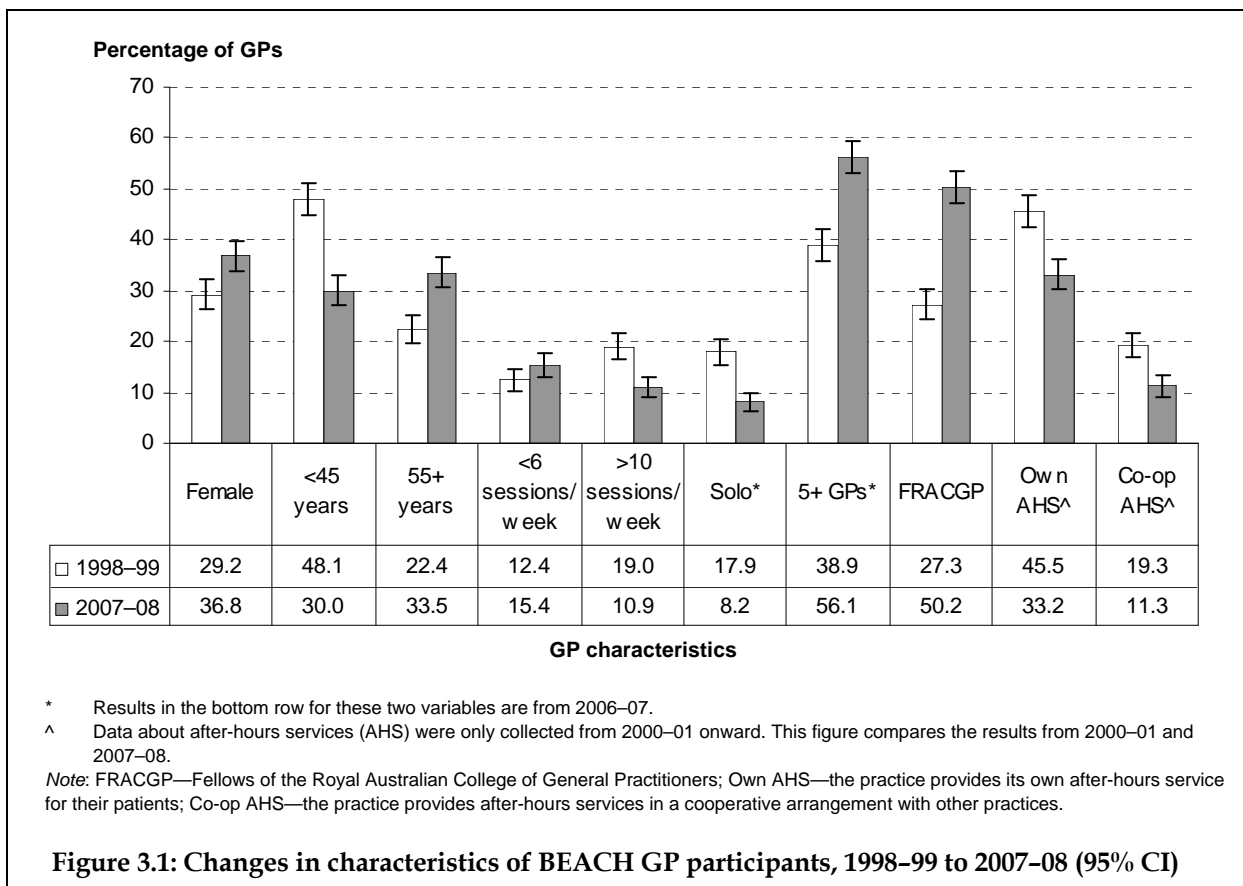
An ever-changing sample of about 1,000 GPs per year has taken part in BEACH since 1998 (see Chapter 2). Currently, demographics of BEACH participants are representative of all GPs in the sample frame prepared by the Australian Government Department of Health and Ageing. An earlier difference in the proportion of the youngest cohort of GPs has disappeared, with the sample frame now also showing a decreasing proportion of young doctors.

BEACH also shows that the general practice workforce in Australia is changing in a number of ways (Figure 3.1). Notable changes that have occurred over time are presented here.

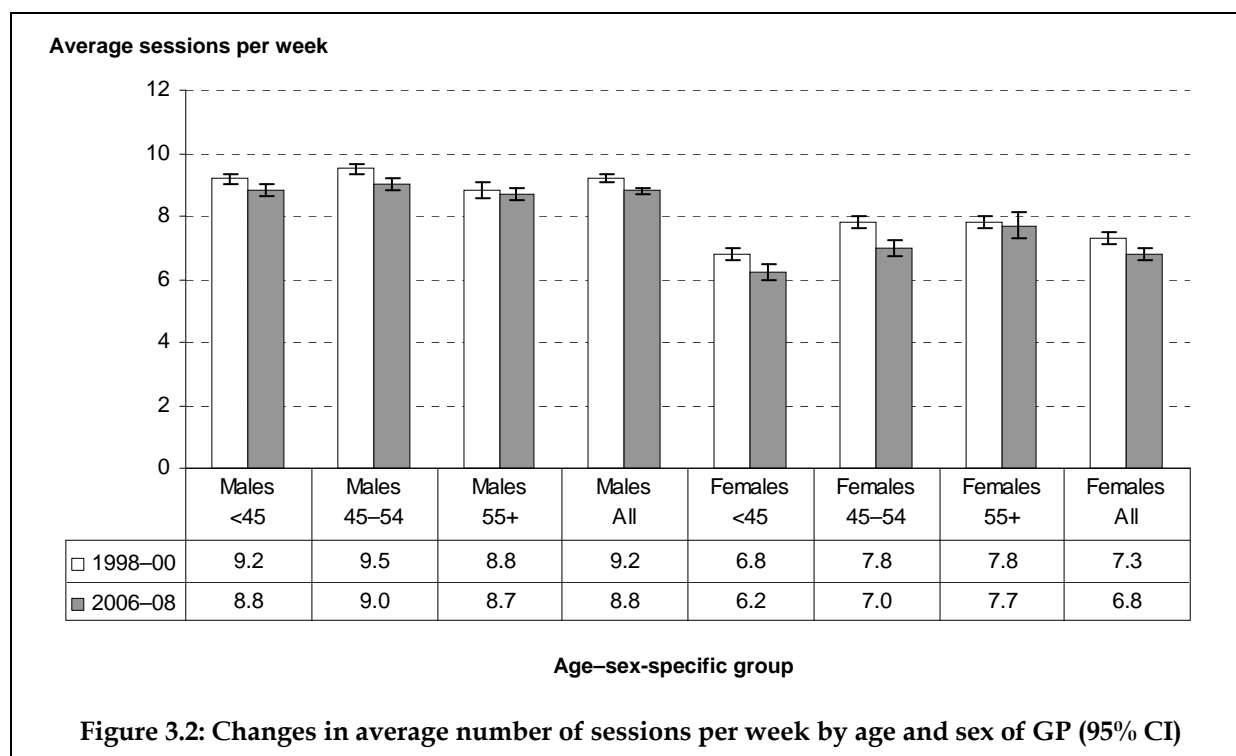
- The proportion of female participants increased from 30.0% in 1998–99 to 36.8% in 2007–08²¹, in line with the workforce reports mentioned above. This shift is likely to continue in future, as, according to the Medical Training Review Panel, women accounted for 57.3% of all first year medical students in 2004 and 46.6% of advanced

vocational trainees in 2007.²² However, a study of 386 graduates from a Melbourne medical school found a significant decrease in the proportion of new graduates, especially women, choosing to work in general practice. The authors cited reasons such as high workload, less remuneration and heavy administrative burden as some of the reasons for this decline.²³

- There was a considerable decrease in the proportion of GP participants aged less than 45 years (from 42.7% in 1998–99 to 30.0% in 2007–08), and an increase in the proportion aged 55 years or more (from 25.2% in 1998–99 to 33.5% in 2007–08).²¹
- There was an increase in the proportion practising for 20 years or more, from 42.2% to 55.9%.²¹
- The proportion of participants in solo practice halved over the 10-year period. There was an associated significant increase in the proportion of GPs working in practices with five or more practitioners, from 38.9% in 1998–99 to 56.1% in 2006–07 (information not available for 2007–08).²¹ This finding reflects the rise in group practices, medical centres and corporatisation which has occurred since BEACH began. Another factor was the GP Links program, which encouraged the formation of larger practices.¹⁶
- The proportion of GP participants holding Fellowship of the RACGP increased significantly, from 27.3% in 1998–99 to 50.2% in 2007–08. The legislation noted above would have played a large part in this result.



- Since 2000–01, when a question about computers in the practice was first asked in BEACH, there has been a significant increase in the proportion of GPs with a computer available at their major practice address, for either administrative or clinical use, or both, from 87.4% in 2000–01 to 96.7% in 2007–08.²¹ However, availability of computers in the practice was not equalled by use. A study in 2006 found that 11.2% of GPs did not use a computer at all, and of those who used a computer, only 21.7% kept all data electronically and made use of all their computer’s clinical functions.⁷ A further study found that GPs who were younger, female, Fellows of the RACGP, and those working in larger practices were more likely to use computers for clinical purposes. Additionally, it was demonstrated that the use of computers for clinical purposes had not produced any difference in measurable indicators of quality of patient care.²⁴
- In the BEACH program, GP participants have always been asked the number of clinical sessions they work per week. A session was defined as equal to a morning or afternoon consulting period. There has been a significant decrease in the proportion of both male and female GPs working 11 or more sessions per week. The average number of sessions fell significantly from 8.6 per week in 1998–00 to 8.1 in 2006–08.
- Figure 3.2 shows age- and sex-specific rates of sessions worked per week for 2,011 GP participants from 1998–00, and 1,850 from 2006–08. Overall, there were significant decreases in average number of weekly sessions for both male and female GPs. Male GPs worked an average of 9.2 sessions per week in 1998–00 and 8.8 sessions per week in 2006–08. For female GPs the average was 7.3 sessions in 1998–00 and 6.8 in 2006–08. However, this decrease in working hours between the two data periods was not evident for male or female GPs aged 55 years and over. Overall, in both periods females worked significantly fewer sessions per week on average than male GPs.



- The geographic distribution of GPs did not appear to undergo any major changes over the 10-year period. Seventy-one per cent of GPs in 1998–99 and 72.2% in 2007–08 worked in Major Cities as defined by the Australian Standard Geographical Classification.²⁵ There was a slight decrease in the proportions working in Inner and Outer Regional areas and a slight increase (from 0.1% to 0.5%) working in Very Remote areas.²¹
- Practice nurse assistance at consultations was recorded in BEACH from 2005 onwards. The proportion of such consultations increased significantly from 3.9% in 2005–06 to 6.0% in 2007–08. For about 35% of these encounters, practice nurse activities were said to be claimable from Medicare. A comparison of practice nurse item numbers recorded in BEACH with the number shown in Medicare data suggested that about 50% of services claimed for practice nurses have been carried out independently of the recorded consultation, and no data are available on these activities. Non-claimable practice nurse activities that were recorded as part of the BEACH encounter and have been increasing recently were check-up, international normalised ratio (INR) blood test and administrative activities.²¹
- GP referral patterns suggest that there have been changes in workload distribution among GPs, specialists and other professions. Over the 10-year period, there was a significant increase in encounters where a referral was written, and in particular there were higher rates of referral to cardiologists, physiotherapists, psychologists, podiatrists and dietitians.²¹

3.2 General practice workload: policy, population and patients

This section summarises changes that occurred over the first 10 years of the BEACH study that are relevant to general practice and have had an impact on the workload of GPs.

Relevant policy changes since 1998

There have been many changes to the Medicare Benefits Schedule (MBS) over the decade of this study that affect the type of work general practitioners do.

In 1998–99, there were few Medicare items available for GP claims besides the basic A1 and A2 items. These items cover general practitioner attendances and other non-referred attendances to which no other item applies. Other items available at that time were prolonged attendances (A5 items), group therapy (A6), acupuncture (A7) and antenatal care (item number 16500).²⁶

New items added to the Medicare schedule provided remuneration for areas of patient care that had not previously been recognised or compensated individually. Relevant items are shown here in the order in which they were introduced.

Health assessments and care planning

- In 1999, health assessment items were brought in, providing a Medicare rebate for annual check-ups by GPs of people aged 75 years and over and Aboriginal and Torres Strait Islander peoples aged 55 years and over (A14).²⁷

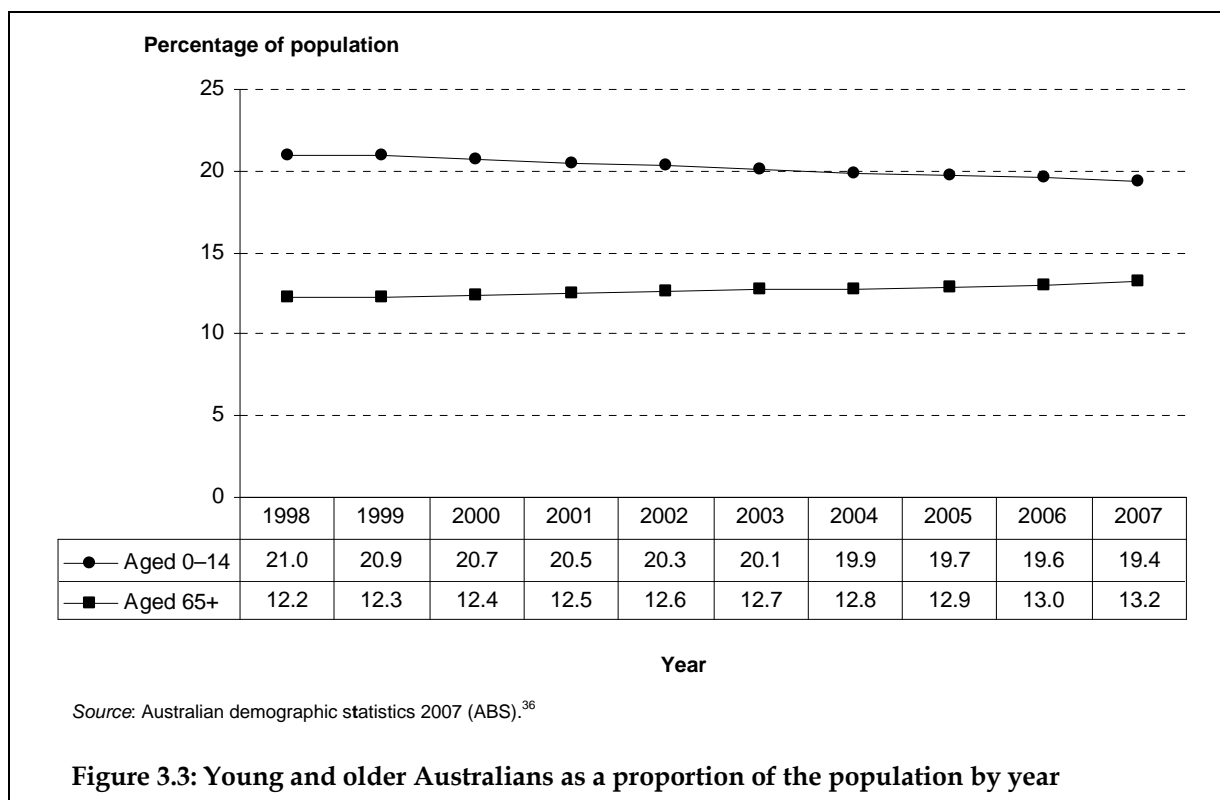
- Also in 1999, multidisciplinary care plans and case conference items (A15) were introduced. The care planning items were withdrawn and replaced in November 2005 with GP management plans, which are applicable to a wider patient population with chronic or terminal medical conditions with or without complex care needs. Patients on these Enhanced Primary Care (EPC) plans are eligible for up to five Medicare-subsidised allied health services on referral from a GP.²⁸
- Comprehensive medical assessments of patients in residential aged care facilities were reimbursed by Medicare under a specific item number from May 2004.²⁹
- Items to cover health checks specifically for Aboriginal and Torres Strait Islander peoples aged 15–54 years were introduced in May 2004, followed by additional items for check-ups of Indigenous children and refugees, in November 2005.²⁸
- A one-off health check item for people aged 45–49 years was introduced in 2006.³⁰
- Preschool health checks for all children at or after their 4-year immunisation were given their own item number in 2008 and will therefore not have any impact on the results of this study of changes from 1998–99 to 2007–08.

Other items

- In 2001, MBS items were introduced for medication management reviews (A17), and to the Practice Incentives Program (PIP) (A18 & 19), for completing the diabetes and asthma cycles of care.³¹
- GP mental health care plans (A20), which incorporated a three-step mental health process and focused psychological strategies, were established in 2002 and amended in 2006^{32,33} (for more details see Chapter 6).
- Bulk-billing incentive payments came into effect in 2004, and GP after-hours consulting received its own specific item numbers (A22) in the same year.²⁹
- Patient care provided by a practice nurse under the supervision of a GP began to be recognised with specific item numbers in 2004 (M2).²⁹
- A pregnancy support counselling item began in 2006.³⁰
- A Type 2 diabetes risk evaluation item for patients at high risk aged 40–49 years was introduced in 2008.

The Australian population

Like the rest of the world, Australia has an ageing population, the consequence of large birth cohorts in the 1950s and 1960s, and the subsequent fertility decline combined with increased life expectancy. The median age of the Australian population as of 2007 was 37 years.³⁴ At present, in just 11 developed countries the median age is more than 40 years, but by 2050, 90 countries will fall into that group, 46 of them in the developing world. The United Nations also reports the beginning of a notable worldwide increase in the number of people aged 80 years or more. In almost all societies, women form the larger proportion of older people.³⁵ Figure 3.3 shows changes in the youngest and oldest age groups over the 10-year period.



General practice attendance rates

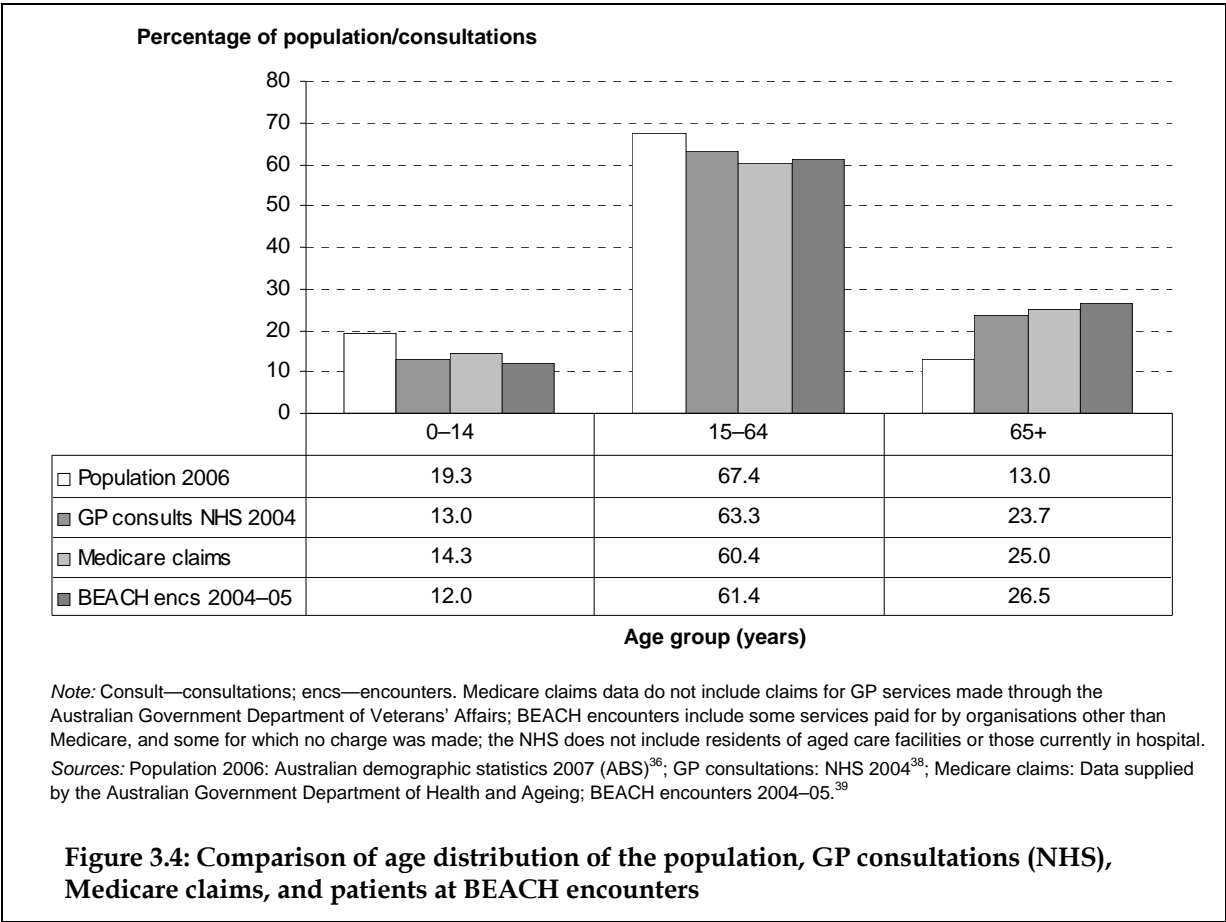
The average number of total Medicare services (including GP services) processed annually per person rose from 10.7 in 1997 to 12.3 in 2007. The proportion of these services used by persons aged 65 years and over rose from 23.6% in 1997 to 29.7% in 2007.³⁷

By extrapolation and age standardisation of a population sample of self-reported health, the National Health Survey 2004–05 estimated that 3.9 million persons had consulted a GP in the 2 weeks before the survey. These consultations accounted for almost four-fifths of doctor consultations over that period, the other 20% being with specialists. The closest Census year to the National Health Survey 2004–05 was 2006, and Figure 3.4 compares the proportion of persons in each age group according to the Census³⁶ with the percentage of GP consultations recorded for each age group from the National Health Survey.³⁸ Also shown are Medicare claims and BEACH results from the same period.

Children make up a greater proportion of the population (19.3%) than they do the proportion of GP visits (13.0%), while those in young and middle adulthood represent similar proportions of population and GP attendances. In contrast, older people, who represent only 13.0% of the population, account for almost twice the proportion of self-reported GP visits (23.7%), a quarter (25.0%) of Medicare claims for general practice services and 26.5% of BEACH encounters (Figure 3.4).

The average number of Medicare GP items of service claimed per head of population in each financial year since 1998 is shown in Figure 3.5. The highest attendance rate was in the first year, at 5.51 visits per head. Average attendance then steadily decreased to a low of 4.87 visits per head in 2003–04.

The notable decrease in per capita claims coincided with a decline in levels of bulk-billing for GP attendances from a peak of almost 80% in 1996–97 to 69% by the end of 2002. The decline in bulk-billing levels was attributed to a complex interaction of causes, which included level of MBS fee, geographical spread of GPs, and corporatisation.⁴⁰



In light of the decreasing attendance rate, which raised questions about equity of access, the Australian Government made substantial changes to laws governing Medicare benefits in 2004 and 2005.^{28,29}

- Each bulk-billed GP service to concession cardholders and children aged less than 16 years attracted an extra incentive payment to the GP. The incentive payment was higher for GPs working in areas outside capital cities and in metropolitan areas with workforce shortage. This measure aimed to tackle the regional disparity in bulk-billing rates.
- The existing safety net, which covered the difference between the Medicare benefit and the schedule fee once an annual threshold was met, was extended to reimburse 80% of out-of-pocket expenses (that is, the difference between the fees charged by the doctor and Medicare benefits paid) when a certain level of spending had been recorded in a calendar year. The out-of-pocket expenses would therefore count towards the threshold, which is currently \$555 for concession cardholders and recipients of Family Tax Benefit A, and \$1,111 for all other patients.

- From January 2005, the Medicare benefit paid to a GP for almost all services (whether bulk-billed or not) increased from 85% to 100% of the Medicare schedule fee. This measure delivered the extra 15% to the doctor who bulk-billed, or to the patient of a non-bulk-billing doctor and therefore aimed to increase the proportion of consultations that were bulk-billed.

These measures appear to have had an effect, as attendance rates per head of population began to increase from 2004–05 onwards, and are approaching the levels of the 1990s (Figure 3.5). The total number of GP attendances, which had decreased from 102.6 million in 1998–99 to 96.3 million in 2003–04, increased to 109.5 million in 2007–08. Levels of bulk-billing for unreferral GP consultations also rose, reaching 73.9% in June 2008.¹

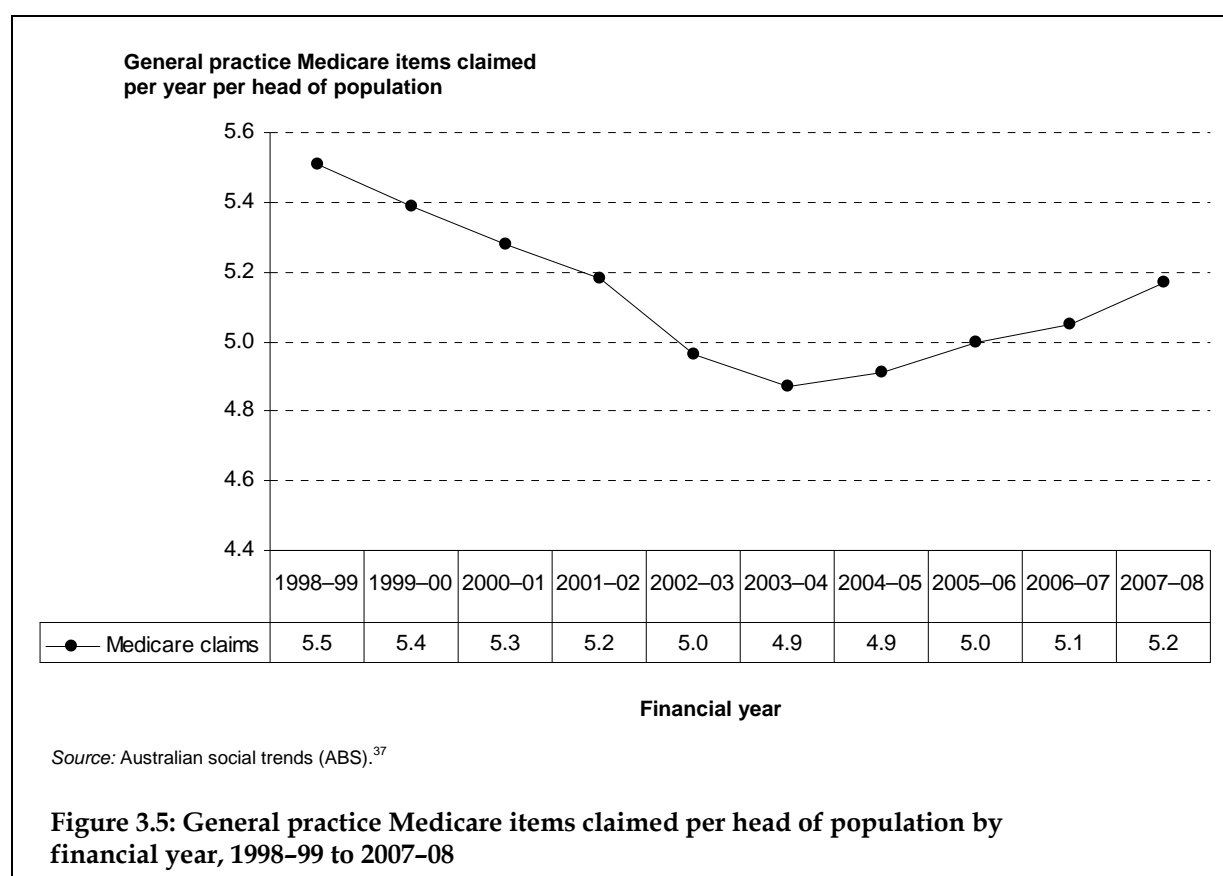
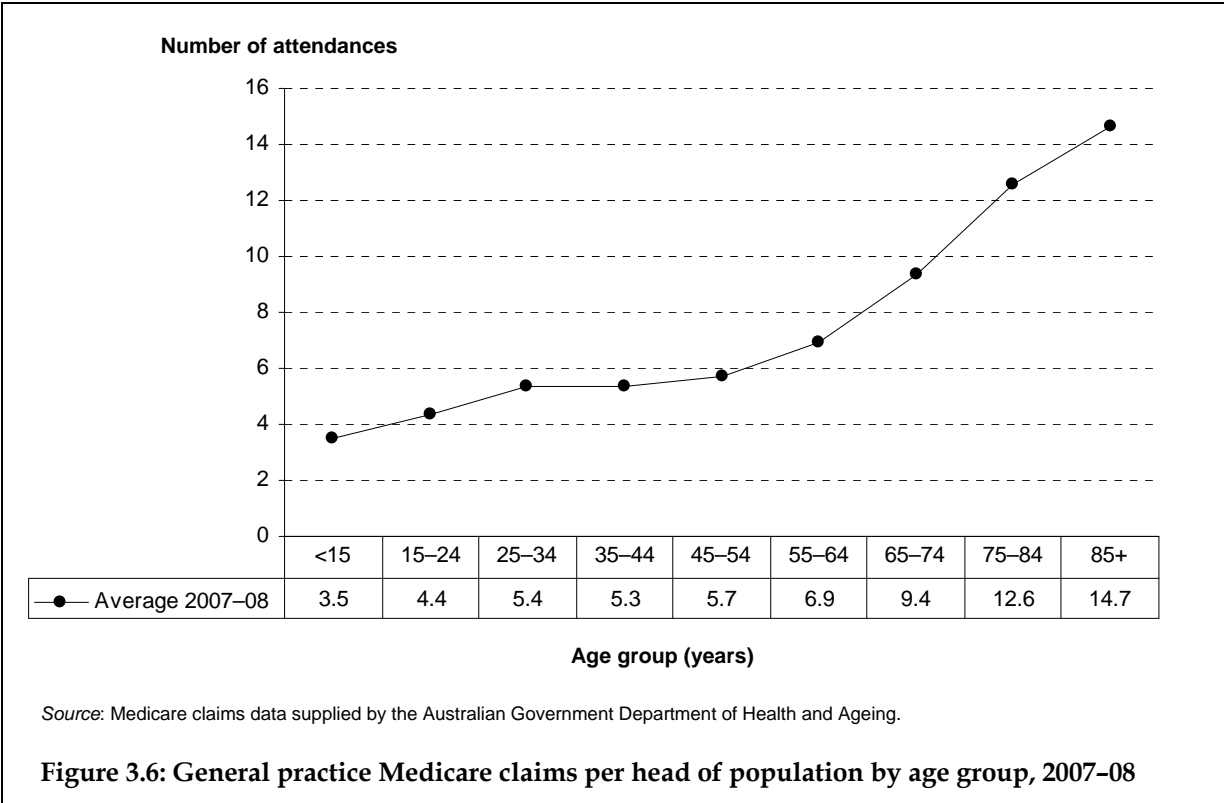
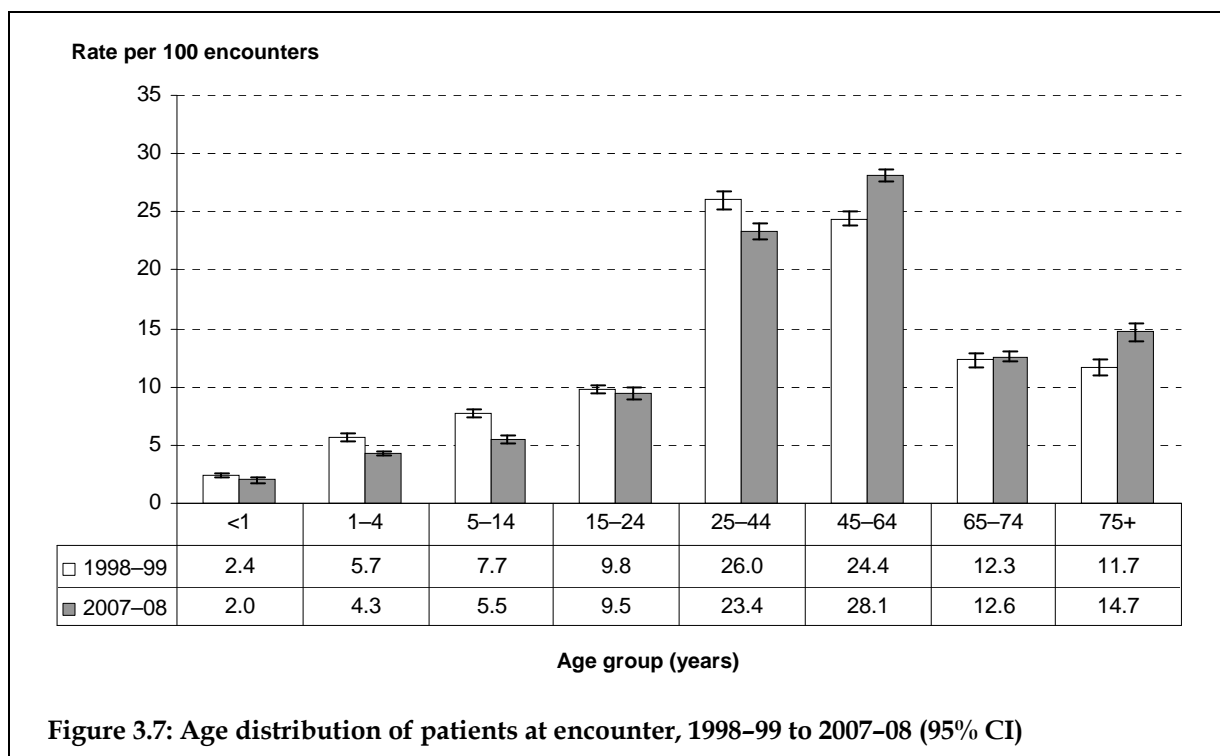


Figure 3.6 illustrates the fact that children attend the GP less often than do older people. During 2007–08, children aged less than 15 years attended on average 3.5 times (Medicare claims data supplied by the Australian Government Department of Health and Ageing). Attendance rates increased to 5.4 per year for those aged 25–44 years, and levelled out somewhat until the 55–64 year age group who attended almost 7 times on average. Annual attendance rates then rose steeply with each age group among the older population, to reach an average of almost 15 visits per year among those aged 85 years and over.



Another significant change in GP work distribution has been a decrease in the proportion of encounters with patients who hold a Repatriation health card, from 3.4% (95% CI: 3.1-3.6) in 1998-99 to 2.8% (95% CI: 2.5-3.0) in 2007-08. This reflects trends in Veteran numbers published by the Department of Veterans' Affairs.⁴¹ There were no other significant changes in patient characteristics although there have been fluctuations in the proportions of encounters with patients who stated they were of non-English-speaking background and with self-identified Aboriginal/Torres Strait Islander persons. There has also been some non-linear movement in the proportion of encounters with patients who hold a Commonwealth concession card. Initially it decreased from 43.1% in 1998-99 to 36.7% in 2000-01, then increased to 43.2% in 2004-05 before decreasing to the current level of 41.8%. Eligibility for the concession cards changes from time to time, which may affect usage levels. It is probable that an increase will occur in this group as the 'baby-boomer' generation reaches retirement age.

BEACH encounters reflect the changing distribution of attendances by age groups of patients. Over the decade of this study, the proportion of encounters that were with patients aged less than 15 years decreased from 15.8% to 11.8%. Through simple extrapolation to total Medicare claims, this suggests that nationally there were about 3.3 million fewer encounters with children in 2007-08 than in 1998-99. Over the same period, the proportion of encounters with patients aged 45 years and over increased from 48.4% to 55.4%, which equates to 9.6 million encounters more in 2007-08 than a decade earlier. The increasing proportion of the GP workload associated with patients in the 45-64 years and 75 years and older age groups is apparent in Figure 3.7.



Although the population is fairly evenly divided between males and females, it has been shown that women in developed countries consistently attend general practice more often than men, accounting for about 57.0% of patient encounters.⁴² BEACH 2006-07 reported a trend towards an increase in the proportion of males at general practice encounters since 1998-99, found to be statistically significant using simple linear regression analysis, and representing an annual increase of 0.17% of encounters with male patients ($t = 3.4$, $p < 0.001$, $df = 8,920$).⁴³ However, when this measure was repeated, comparing the most recent data from 2007-08 with that from 1998-99, no significant change in the proportion of encounters accounted for by males was apparent.

In late 2008, the Australian Government launched a new men's health initiative, to encourage Australian men to take a greater interest in their health by regularly visiting their GP.² It will be interesting in future years to measure the impact of this initiative on men's attendance at the GP, and the problems newly diagnosed as a result. A particularly positive result would be increased attendance by younger men (15-35 years) who have very low attendance rates, are largely managed for acute respiratory problems and injuries,⁴⁴ and have high prevalence of at-risk alcohol consumption and daily smoking.² Perhaps more regular attendance may lead to earlier detection and management of their behavioural and physical risk factors.

3.3 Conclusion

The studies reviewed at the beginning of this chapter looked at GP characteristics and the changing face of the primary care workforce, matters which are fundamental to GPs' practice style. Patient age mirrors age of GP, and the patient population of female GPs is 70% female. Postgraduate qualification (FRACGP) affects the practice style of Australian GPs, and IMGs see a different mix of patients than do GPs who have attained FRACGP.

Changes to education and training, the ageing of GPs and higher numbers of female graduates (who work fewer hours per week on average) have had a considerable effect on the workforce. The decline in weekly hours worked has contributed to an apparent shortage of GPs. Increased GP training places, the employment of international medical graduates in areas of need, and the rise in practice nurse-assisted consultations have been responses to this shortage.

Australian Government initiatives, particularly in regards to the Medicare Benefits Schedule, appear to have led to changes in patient attendance rates and in the pattern of GP clinical activity. Remuneration for GPs managing the particular needs of patients with chronic disease, and conducting preventive health checks for people at risk have been the focus of policy makers in recent years.

As the median age of the population rises and life expectancy improves, a greater part of GPs' workload will involve consultations with older patients. Annual attendance rates increase sharply among patients aged 75 years and over.

All these matters have been considered here, together with changes observed in BEACH GP participants, to provide a context for this report's examination of the content of consultations, management of selected morbidities and use of pathology services that follows.

Suggested chapter citation

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