4 GP clinical activity

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This chapter investigates changes between 1998–99 and 2007–08 in the reasons for encounter expressed by patients when they see their GP, the problems managed by GPs in the encounters, the management activities of the GPs for these problems, and the measured time spent in consultations. Note that some concept labels in this chapter include grouped ICPC-2 or ICPC-2 PLUS codes (see Chapter 2). A full list of code groups is provided in Appendix 3.

4.1 Patient reasons for encounter

International interest in reasons for encounter (RFEs) has been developing over the past three decades. RFEs reflect the patient's demand for care, and can provide an indication of service use patterns, which may benefit from intervention on a population level.[1]

RFEs are those concerns and expectations that patients bring to the GP. Participating GPs were asked to record at least one and up to three patient RFEs in words as close as possible to those used by the patient, before the diagnostic or management process had begun. These reflect the patient's view of their reasons for consulting the GP. RFEs can be expressed in terms of one or more symptoms (for example, 'itchy eyes', 'chest pain'), in diagnostic terms (for example, 'about my diabetes', 'for my hypertension'), a request for a service ('I need more scripts', 'I want a referral'), an expressed fear of disease or a need for a check-up.

RFEs are classified according to the International Classification of Primary Care—Version 2 (ICPC-2), a product of the World Organization of Family Doctors (Wonca)[2], the structure of which is described briefly below and in detail in Chapter 2

- ICPC-2 has a bi-axial structure, with 17 chapters on one axis and seven components on the other (numeric codes).
- Chapters are based on body systems, with additional chapters for psychological and social problems.
- Component 1 includes symptoms and complaints. Component 7 covers diagnoses/diseases. These are independent in each chapter, and both can be used for patient RFEs or problems managed. Diagnoses can be further divided into infections, neoplasms, injuries, congenital anomalies, and other diagnoses.
- Components 2 to 6 cover the process of care, and are common throughout all chapters. The processes of care, including referrals, other (non-pharmacological) treatments and orders for pathology and imaging are classified in these process components of ICPC-2. Component 2 (diagnostic, screening and prevention) is also often applied in describing the problem managed (for example, check-up, immunisation).

Patient RFEs can have a one-to-one, one-to-many, many-to-one and many-to-many relationship to problems managed. That is, the patient may describe a single RFE that relates to a single problem managed at the encounter, one RFE that relates to multiple problems, multiple symptoms or complaints that relate to a single problem managed, or multiple RFEs that relate to multiple problems managed at the encounter.

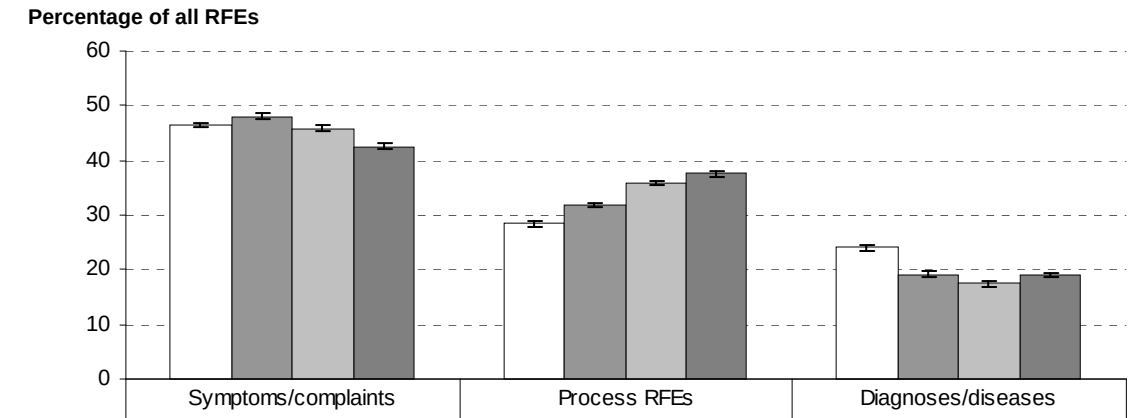
Number of reasons for encounter 1998–99 to 2007–08

The number of reasons given rose significantly, from 146.3 (95% CI: 144.6–148.0) RFEs per 100 encounters in 1998–99 to 151.0 (95% CI: 149.2–152.8) per 100 in 2000–01. Since then it has remained steady at 151–153 reasons for every 100 encounters. In 1998–99, 26.8% of encounters involved two RFEs and a further 9.7% involved three RFEs. Ten years later, 29.1% involved two and 11.9% involved three RFEs. This suggests that in 2007–08 there were about 7.5 million more encounters nationally with two or three RFEs than a decade earlier.[3]

Changes in types of reasons for encounter

Figure 4.1 shows the changes in the pattern of patients' reasons for their GP encounters.

- RFEs describing symptom or complaint (for example, 'cough', 'tired', 'rash', 'feeling anxious') remained the most frequent, but since 2000–01 these have taken up a decreasing proportion of all RFEs.
- RFEs described in terms of a diagnosis or disease (for example, 'about my diabetes') decreased in frequency, accounting for a smaller proportion (18.9%) of all the reasons given in 2007–08, than a decade earlier (24.0%).
- However, the major change in the pattern of the demand for care was an increasing emphasis on requests for services ('process requests') from the GP, which made up 28.4% of all RFEs in 1998–99 but rose to 37.6% of all RFEs by 2007–08.



	Symptoms/complaints	Process RFEs	Diagnoses/diseases
1998–99	46.5	28.4	24.0
2001–02	48.0	31.9	19.2
2004–05	45.9	35.9	17.4
2007–08	42.6	37.6	18.9

ICPC-2 component

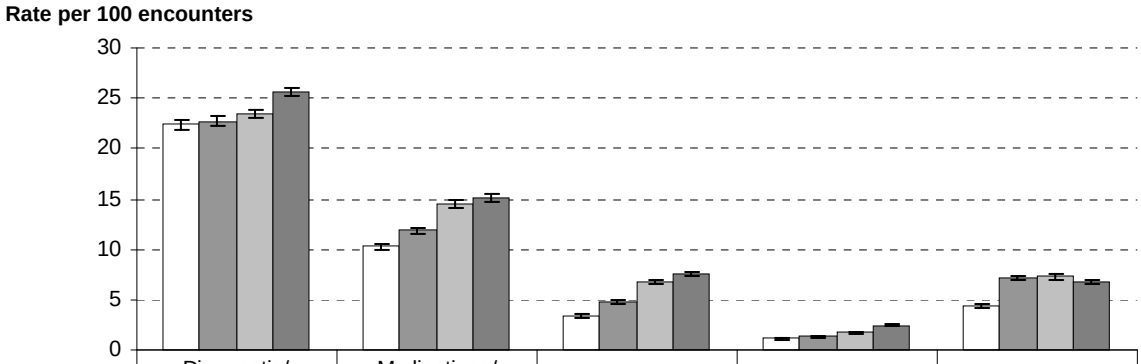
Note: These results may not align with those previously published in BEACH reports. This analysis uses updated component groupings of ICPC-2 codes, released by the Wonca International Classification Committee in 2004.[4]

Figure 4.1: Changes in proportional distribution of RFEs by components, 1998–99 to 2007–08 (95% CI)

RFEs described as a request for a service or process of care, increased by almost 40% from 41.6 (95% CI: 40.0–43.1) per 100 encounters in 1998–99 to 57.5 (95% CI: 55.8–59.2) per 100 in 2007–08. Rates per 100 encounters for each type of process RFE are shown in Figure 4.2.

The increase in requests for services was apparent in all five process subclasses.

- Requests for diagnostic or preventive procedures were the most common and increased significantly over the study period. The increase was only 14.3% (from 22.4 to 25.6 per 100 encounters), but this equates to about 5 million additional occasions at which these processes were requested nationally in 2007–08 compared with 1998–99. This increase was largely due to increases in requests for general check-ups (not disease or body system specific), female genital check-ups (such as Pap smear) and skin checks. However presentations for unspecified blood tests also increased significantly.
- Requests for medication or for procedural treatments also rose over the study period, by 47%, from 10.3 per 100 encounters in 1998–99 to 15.1 in 2007–08. This was largely due to almost a 50% increase in requests for prescriptions of which there were 8.2 (95% CI: 7.7–8.7) per 100 encounters in 1998–99 and 12.1 (95% CI: 11.4–12.7) per 100 encounters a decade later. This change equates nationally to about 4.8 million more GP–patient encounters at which patients have stated they have come for prescription than in 1998–99.
- Patient requests for the results of tests and investigations more than doubled over the decade, rising from 3.4 per 100 encounters to 7.6 per 100 in 2007–08. This increase suggests that such requests were made on about 4.8 million more occasions nationally in 2007–08 than in 1998–99.



	Diagnostic/ preventive	Medications/ procedures	Test results	Administrative	Referrals/RFEs
1998–99	22.4	10.3	3.4	1.1	4.4
2001–02	22.7	11.9	4.7	1.3	7.2
2004–05	23.4	14.5	6.8	1.7	7.3
2007–08	25.6	15.1	7.6	2.4	6.8

ICPC-2 component

Note: RFEs—reasons for encounter. These results may not align with those previously published in BEACH reports. This analysis uses updated component groupings of ICPC-2 codes, released by the Wonca International Classification Committee in 2004.[4]

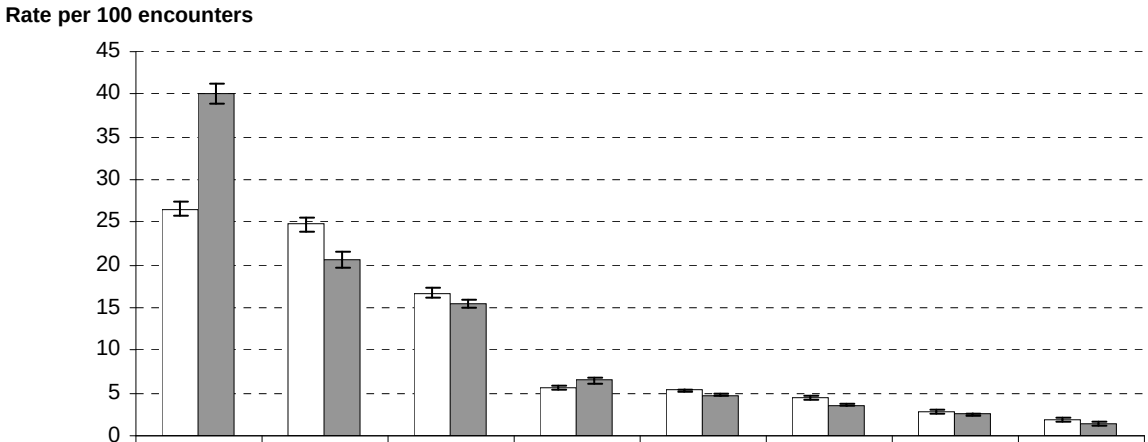
Figure 4.2: Changes in rates per 100 encounters of process RFEs (components 2-6), 1998–99 to 2007–08 (95% CI)

- Requests for an administrative procedure (for example, a sickness certificate) also more than doubled, equating to an additional 1.5 million requests nationally in 2007–08 than a decade earlier. This may reflect the increasing requirement of employers to provide a sickness certificate for one day's leave, together with increasing GP responsibility for completion of administrative documents for a range of government departments.
- There was a 55% increase in the frequency of requests for a referral to another service and other RFEs, from 4.4 (95% CI: 4.0–4.7) per 100 encounters in 1998–99 to 6.8 (95% CI: 6.4–7.2) per 100 in 2007–08. The large majority of these were other RFEs (for example, doctor initiated follow-up consultations) and these did not change over the period. However requests for referrals almost doubled from 1.0 (95% CI: 0.9–1.1) per 100 encounters in 2000–01 to 1.9 (95% CI: 1.7–2.0) per 100 in 2007–08.

Changes in reasons for encounter by ICPC-2 Chapter

Between 1998–99 and 2007–08, there was a large increase in presentations for general and unspecified issues (requesting prescriptions and check-ups in particular) and an increase in RFEs related to the endocrine and metabolic system. There were significant decreases in RFEs associated with the respiratory, musculoskeletal and neurological systems, and in those related to the ear and the eye and the blood/blood forming organs (Figure 4.3).

There was no change in the rate of RFEs associated with the male or female genital systems, the circulatory, digestive and urological systems or those related to the skin, and pregnancy and family planning, or those of a psychological or social nature.



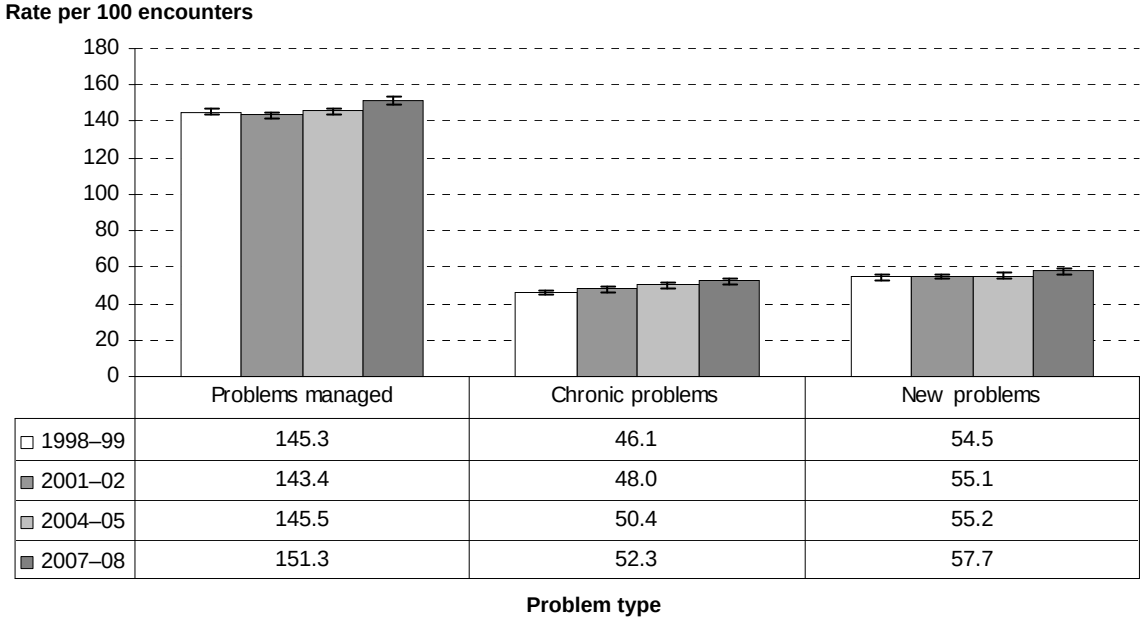
	General/ unspec	Respir- atory	Musculo- skeletal	Endocrine /metabolic	Neuro- logical	Ear	Eye	Blood/ blood form
1998–99	26.6	24.8	16.7	5.6	5.3	4.5	2.8	1.8
2007–08	40.1	20.6	15.4	6.5	4.8	3.6	2.5	1.4

Figure 4.3: Significant changes in rates of RFEs by ICPC-2 Chapter, 1998–999 and 2007–08 (95% CI)

4.2 Problems managed at GP encounters

The number of problems managed at encounters with GPs steadily increased over the decade, from 145.3 (95% CI: 143.5—147.2) in 1998–99 to 151.3 (95% CI: 149.2—153.4) per 100 encounters in 2007–08. The majority of this increase occurred between 2005–06 and 2007–08. This suggests that nationally, in 1998–99 the GP workforce dealt with 149.1 million problems at encounters with their patients, whereas in 2007–08 they dealt with 165.7 million problems, an increase of 16.6 million, or 11.1%.

This increase was reflected in both the number of new problems managed (that is, first contact with a medical professional for a new problem or for a new episode of an acute or recurrent problem) per 100 encounters, and the number of chronic conditions managed per 100 encounters, both of which increased significantly over the decade (Figure 4.4).



	Problems managed	Chronic problems	New problems
1998–99	145.3	46.1	54.5
2001–02	143.4	48.0	55.1
2004–05	145.5	50.4	55.2
2007–08	151.3	52.3	57.7

Note: Chronic problems—as defined by O'Halloran et al.[5]

Figure 4.4: Problems: total, chronic, new, managed per 100 encounters, 1998–99 to 2007–08 (95% CI)

This led to the investigation of the relationship between new cases and chronic problem management rates. The question was, are GPs increasing their detection rates of chronic conditions, or is this parallel increase coincidental?

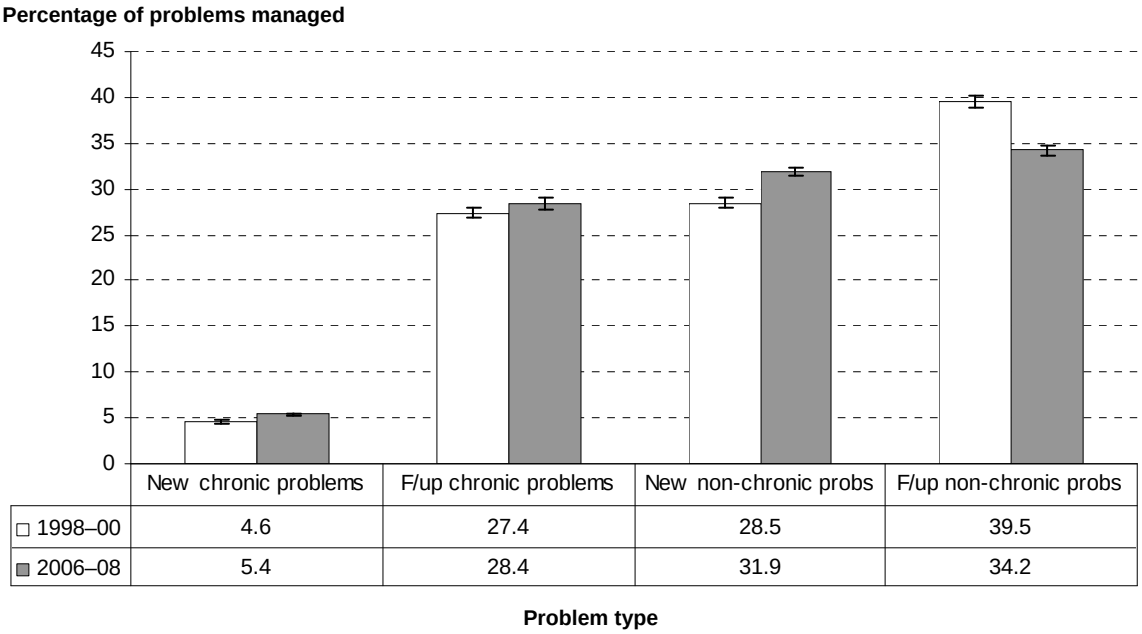
By combining the first 2 years, and the last 2 years of BEACH data for this analysis, statistical power was increased. As shown in Figure 4.5, between 1998–00 and 2006–08 there was a significant increase in the proportion of the problems managed in general practice that were newly diagnosed chronic conditions (as defined by O'Halloran et al. [5]).

This increase may reflect improved detection rates with increased screening associated with the introduction of specific Medicare items for:

- annual health assessments for persons aged 75 years and over (and 55 years and over among Aboriginal and Torres Strait Islander peoples), introduced in 1999
- comprehensive medical assessments in residential aged care facilities (May 2004)
- health checks for those aged 45-49 years (November 2006)
- check-ups for Aboriginal and Torres Strait Islander children and refugees (November 2005).

The new Diabetes Risk Evaluation item (for those aged 40–49 years at high risk of developing Type 2 diabetes), and the Healthy Kids Check for all children aged 4 years[6], introduced in mid-2008, may also influence future detection rates.

In parallel there was a significant reduction in the proportion of the workload spent in follow-ups for previously diagnosed non-chronic conditions. This may be due to the increasing workforce shortage of GPs which may lead to increased use of discretionary follow-up instructions to patients (for example, 'come and see me again if you are no better in *X* days'), and/or more frequent use of advice and counselling on self-management of limiting diseases, leading to fewer return visits for such problems.



	New chronic problems	F/up chronic problems	New non-chronic probs	F/up non-chronic probs
1998–00	4.6	27.4	28.5	39.5
2006–08	5.4	28.4	31.9	34.2

Note: f/up—follow-up; Chronic problems—as defined by O'Halloran et al.[5]

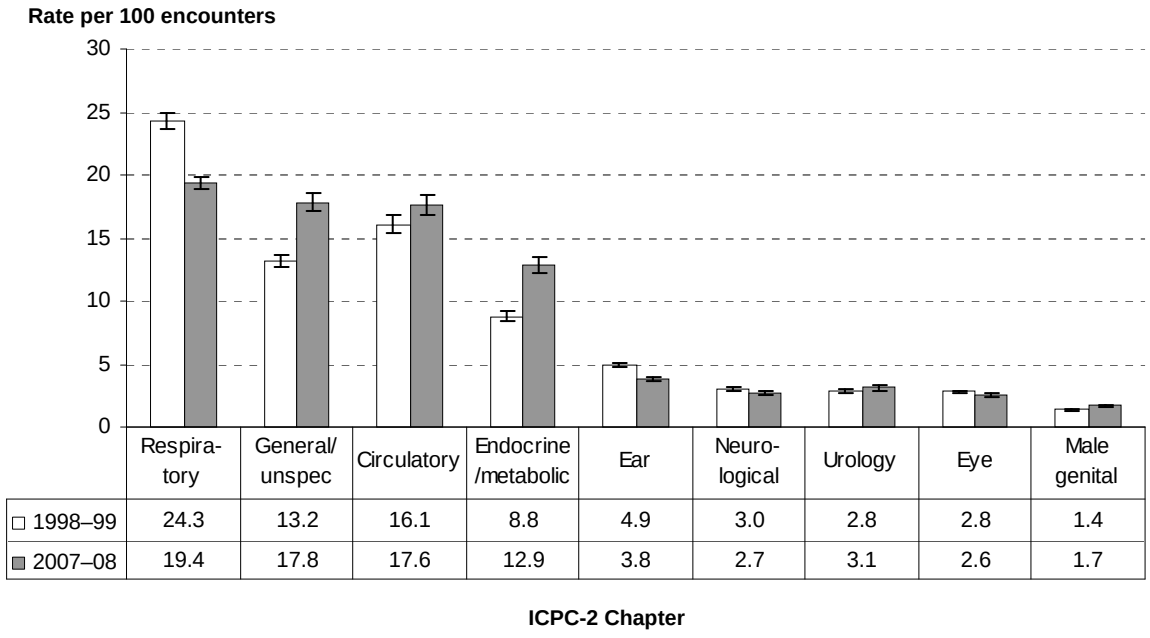
Figure 4.5: New and chronic problem status, 1998–00 and 2006–08 (95% CI)

Problems managed by chapter

The most common problems managed in general practice in 2007–08 were respiratory problems followed by general/unspecified problem, then by problems associated with the skin, the circulatory system and the musculoskeletal system. Together, these five groups accounted for almost 60% of all problems managed.

While respiratory problems remained the problem group most often managed, compared with a decade earlier the management rate of these problems significantly decreased, together with ear problems and neurological problems. There was also a marginal decrease in the management rate of eye problems. Problems related to the respiratory system, the ear and eye are largely acute in nature[1], and perhaps this decline in their management merely reflects the decreasing number of follow-up consultations for non-chronic conditions that was previously noted.

The morbidity groups managed more frequently in 2006–08 than in 1998–00 were general/unspecified problems, those related to the endocrine and metabolic system, and to the male genital system. Marginal increases in management rates were also apparent over the decade in circulatory and urological problems (Figure 4.6).



	Respira-tory	General/ unspec	Circulatory	Endocrine /metabolic	Ear	Neuro-logical	Urology	Eye	Male genital
1998–99	24.3	13.2	16.1	8.8	4.9	3.0	2.8	2.8	1.4
2007–08	19.4	17.8	17.6	12.9	3.8	2.7	3.1	2.6	1.7

Figure 4.6: Significant changes in rates of problems managed by ICPC-2 Chapter, 1998–99 and 2007–08 (95% CI)

The increase in the management rate of:

- general and unspecified problems is largely explained by an increase in the management rate of general check-ups, perhaps stimulated by the increasing number of Medicare items numbers for check-ups and health assessment for patients at different life stages
- endocrine and metabolic problems is heavily influenced by increases in the management of diabetes and lipid disorders (see section below)

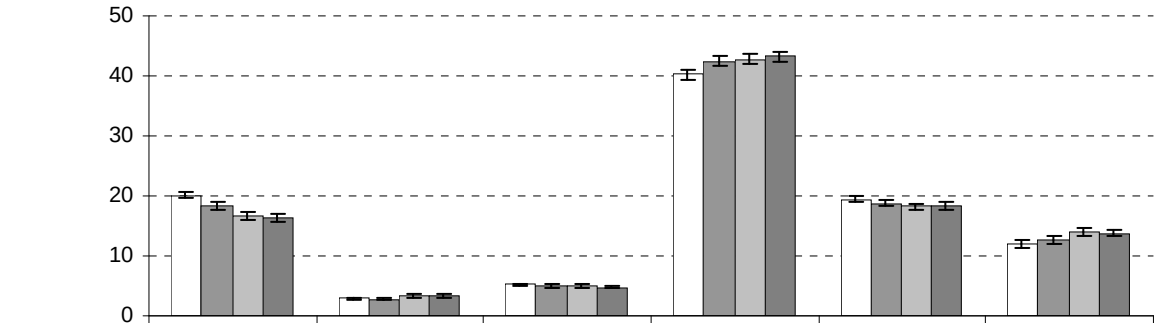
- male genital problems may well be the result of recent wide publicity about the risk of prostate cancer, with the accompanying pressure on males to 'be checked out', combined with a trend toward increasing rates of sexual health checks in younger adult males (see Chapter 15), and the availability and promotion of the health assessment at several adult life stages (see Chapter 3).

There were no changes in the management rates of: problems associated with the skin (managed at a rate of 17.2 per 100 encounters in 2007–08), the musculoskeletal (17.3 per 100), circulatory (17.6 per 100), digestive (10.7 per 100), and female genital systems (5.8 per 100), psychological problems (11.5 per 100), or in those associated with pregnancy and family planning (3.9) or the blood and blood forming organs (1.6 per 100).

Problems managed by components and sub-components of ICPC-2

In 2007–08, problems labeled by the GP in terms of a symptom or complaint accounted for 18.4% of all problems managed and a further 13.8% were described in terms of a process of care (for example, check-up, immunisation, test results). Problems with diagnostic labels (for example, hypertension, hyperlipidaemia, Type 1 diabetes) accounted for the remaining 67.8% of all problems managed.

This overall pattern of problems managed by GPs had changed slightly since 1998–99 with a small move away from both symptom descriptions and diagnosed problems, towards process problem labels (such as 'check-up', 'immunisation', 'test results').



	Infections	Neoplasms	Injuries	Other diagnoses	Symptoms	Processes
1998–99	20.2	2.9	5.2	40.2	19.4	12.1
2001–02	18.3	2.8	5.0	42.4	18.8	12.7
2004–05	16.7	3.4	5.0	42.8	18.2	13.9
2007–08	16.3	3.4	4.8	43.2	18.4	13.8

ICPC-2 component

Note: Congenital anomalies form another subclass of diagnostic labels, but are not included here as they accounted for less than 0.2% of all problems managed in all years. These results may not align with those previously published in BEACH reports. This analysis uses updated component groupings of ICPC-2 codes, released by the Wonca International Classification Committee in 2004.[4]

Figure 4.7: Changes in management rates of types of problems managed, as a proportion of all problems managed, 1998–99 to 2007–08 (95% CI)

Diagnosed problems can be further divided into subgroups. Between 1998–99 and 2007–08, as a proportion of all problems managed:

- infections decreased significantly (20.2% in 1998–99 and 16.3% in 2007–08)
- injuries accounted for a marginally smaller proportion (from 5.2% in 1998–99 to 4.8% in 2007–08). Injuries are investigated in Chapter 12
- congenital anomalies remained constant, accounting for less than 0.2% of all problems managed (see note in Figure 4.7)
- neoplasms increased (from 2.9% in 1998–99 to 3.4% in 2007–08). Malignant neoplasms are studied in further detail in Chapter 13
- 'other diagnoses' (that is, those that were not in the above subgroups) increased markedly from 40.2% of all problems managed in 1998–99 to 43.2% in 2007–08. These are largely chronic diseases, reflecting the increased rate of chronic problem management described earlier (Figure 4.7).

As both infections and injuries seen in general practice are largely acute in nature, the decrease in both reflects the decreasing proportion of the GP workload spent with non-chronic conditions, discussed earlier.

Management rates of individual problems

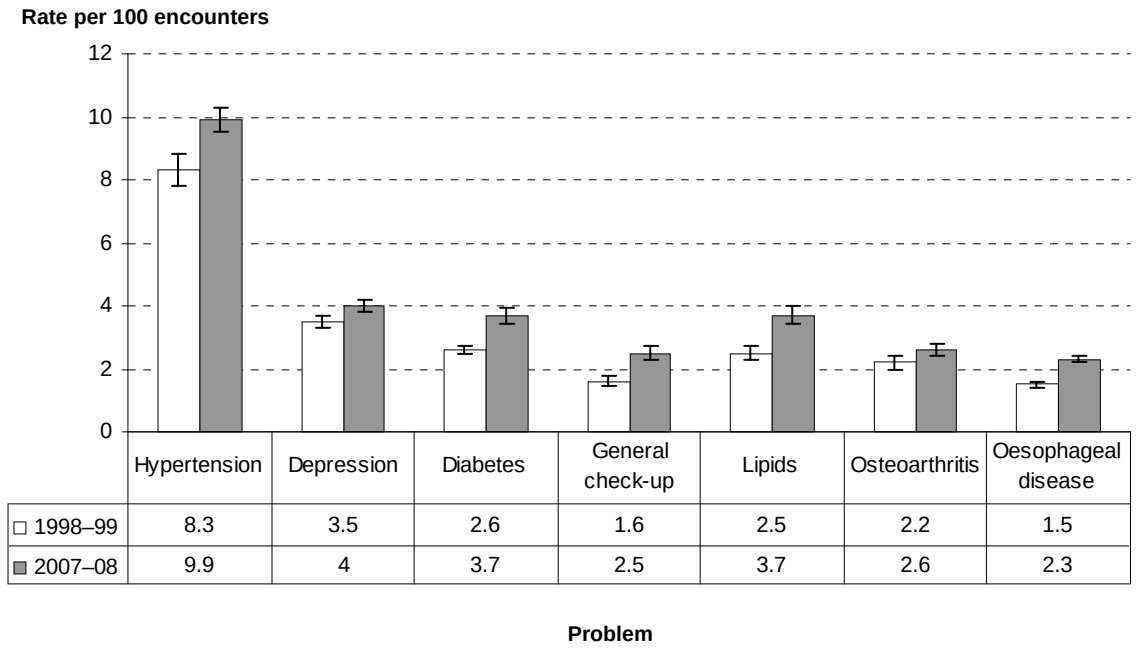
There were many changes in management rates of individual problems over the decade of this study, and these are tabled in *General practice activity in Australia: 10 year data tables*.[3] This chapter merely highlights changes in the most commonly managed problems, many of which are investigated in more details in later chapters of this report.

Between 1998–99 and 2007–08, there were significant increases in the management rate of hypertension, depression, diabetes, lipid disorders (for example, high cholesterol), osteoarthritis, and oesophageal disease (Figure 4.8). These are all chronic diseases and the first three fall into the National Health Priority Areas. As such, they are investigated in more depth in later chapters of this publication. Oesophageal disease is not a National Health Priority Area, but is an emerging chronic problem in the community and is investigated in Chapter 16.

Other problems which GPs managed more often in 2007–08 than a decade earlier that are not presented in Figure 4.8 included:

- solar keratosis (a marginal increased from 1.0 in 1998–99 to 1.4 per 100 in 2007–08)
- malignant skin neoplasms (a significant increase from 0.8 to 1.3 per 100 encounters) (see Chapter 13)
- atrial fibrillation/flutter (almost doubling from 0.6 per 100 encounters to 1.1 per 100 in 2007–08[3]
- 'test results', which more than doubled from 0.8 per 100 encounters in 1998–99 to 1.8 per 100 in 2007–08, supporting our earlier hypothesis that patients are being called back more often to receive and/or discuss their test results with the GP
- 'abnormal test results', which doubled as a problem managed between 1998–99 (0.5 per 100 encounters) and 2007–08 (1.0 per 100). This issue is further discussed in Chapter 5.

The management rate of upper respiratory tract infections significantly decreased between 1998–99 (6.8 per 100 encounters) and 2003–04 (5.5 per 100), but then increased to almost its earlier level by 2007–08 (6.2 per 100 encounters).[3]



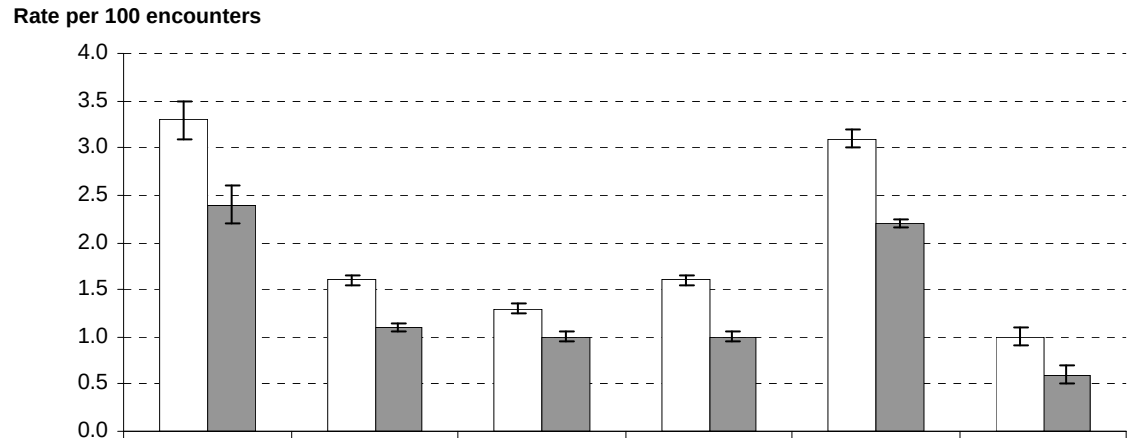
	Hypertension	Depression	Diabetes	General check-up	Lipids	Osteoarthritis	Oesophageal disease
1998–99	8.3	3.5	2.6	1.6	2.5	2.2	1.5
2007–08	9.9	4	3.7	2.5	3.7	2.6	2.3

Figure 4.8: Significant increases in frequently managed problems in general practice, 1998–99 and 2007–08 (95% CI)

Some problems commonly managed in 1998–99 were less frequently managed in 2007–08. The most common of these are shown in Figure 4.9 which demonstrates significant decreases in management rates of acute bronchitis, acute otitis media, tonsillitis and allergic rhinitis.

Menopausal symptoms/complaints were also managed less often in 2007–08 than 10 years earlier (Figure 4.9), but the large decrease occurred in 2004–05 and then remained through to 2007–08. This may be due to the wide publicity in 2002 surrounding the finding of a link between hormone replacement therapy and increased risk of breast cancer.[7] If women are choosing not to take hormone replacement therapy for this problem, and therefore not needing repeat prescriptions, they may be less likely to discuss their menopausal symptoms with their GP.[8]

The only commonly managed chronic problem which demonstrated a decrease in management frequency was asthma. Changes in management of respiratory and related problems are investigated in more detail in Chapter 8.



	Acute bronchitis	Acute otitis media	Tonsillitis	Menopausal sympt/comp't	Asthma	Allergic rhinitis
1998–99	3.3	1.6	1.3	1.6	3.1	1.0
2007–08	2.4	1.1	1.0	1.0	2.2	0.6

Problem

Note: sympt—symptom; comp't—complaint.

Figure 4.9: Significant decreases in frequently managed problems in general practice, 1998–99 and 2007–08 (95% CI)

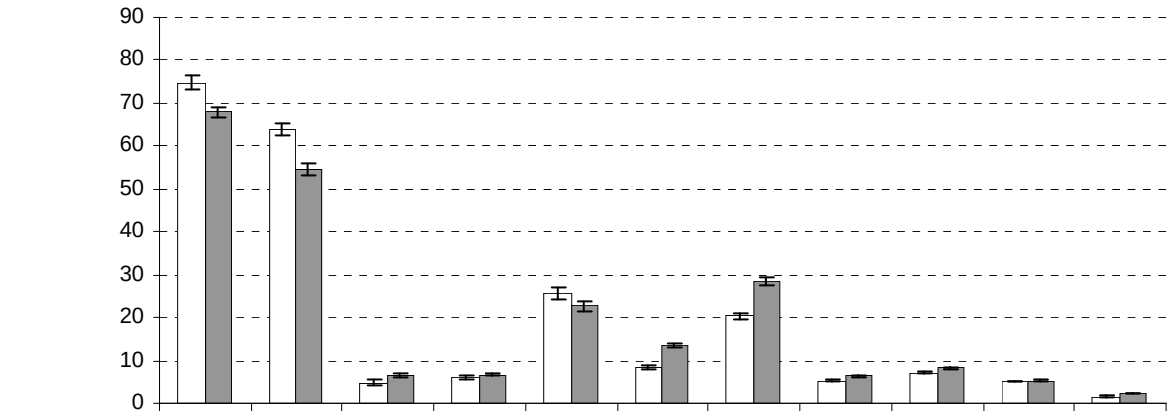
4.3 Management actions at encounter

In BEACH all recorded management actions are directly related to the problem being managed by the GP. As problem types change (such as the increase in the number of chronic problems managed) it would be expected that the pattern of interventions would also change.

This section compares the management actions of 2007–08 with those of 2000–01, because in 2000 more specific coding was introduced for pathology and imaging tests ordered, referrals and medications, rendering earlier data not comparable to that of later years.

Many changes are apparent when comparing the management actions taken in 2007–08 with those taken in 2000–01 for every 100 problems managed (Figure 4.10). In 2007–08:

- GPs prescribed/supplied or advised significantly fewer medications per 100 problems managed (from 74.8 to 67.9 per 100 problems managed).
  - They prescribed significantly fewer medications (54.5 compared with 63.9 per 100 problems managed in 2000–01).
  - They supplied medications (mainly vaccines) directly to their patients significantly more often (6.7 per 100 problems) than 10 years earlier (4.8 per 100).
  - There was no change in the rate of advised purchase of over-the-counter medications.



	All meds	Presc meds	GP-sup meds	Advised OTC	Clinical tx's	Proced-ural tx's	Patho-logy	Imaging	All refs	Spec't refs	AHP refs
□ 2000–01	74.8	63.9	4.8	6.2	25.8	8.4	20.4	5.3	7.2	5.1	1.6
■ 2007–08	67.9	54.5	6.7	6.7	22.8	13.5	28.5	6.3	8.3	5.3	2.3

Management action

Note: Meds—medications; presc—prescribed; GP-sup—GP-supplied; advised OTC— medications advised for over-the-counter purchase; clinical—clinical treatments given (such as advice and counselling); tx's—treatments; pathology—pathology tests/batteries of test ordered; imaging—imaging orders; refs—referrals; spec't—medical specialist; AHP—allied health professional

Figure 4.10: Management actions per 100 problems managed, 2000–01 and 2007–08 (95% CI)

The increase in supplied medications, and parallel decrease in prescribed medications, led to the investigation of whether one counteracted the other. Combining the two forms of provision led to the finding that in 2000–01, GPs prescribed or supplied medications at a rate of 68.6 (95% CI: 67.2–70.0) per 100 problems managed, and in 2007–08, they prescribed or supplied them at a rate of 61.2 (95% CI: 59.8–62.4). This means the decrease in rate of prescribed medications can only be partially explained by the increase in GP-supplied medications.

- GPs provided clinical treatments (advice, counselling and education) at a significantly lower rate in 2007–08 than in 2000–01.
- GPs undertook more procedures, and this change represents annual gradual increases, rather than a change at a single point in time.[3]
- GPs ordered more pathology tests, again representing a gradual annual increase over that period[1], and ordered more imaging.
- Overall, GPs referred their patients at the same rate in 2007–08 as they did in 2000–01, and this was reflected in an unchanged referral rate of problems to medical specialists.
- However, there was a significant increase in the rate of referral to allied health professionals, from 1.6 per 100 problems managed in 2000–01 to 2.3 per 100 problems in 2007–08 (Figure 4.10)

- The increases since 2000–01 have particularly been in referrals to:
  - psychologists: which steady at about 2 per 1,000 encounters from 2000–01 to 2005–06 then doubled in 2006–07 (4 per 1,000 encounters) and rose again to 7 per 1,000 encounters in 2007–08. The rise in 2006–08 coincided with the 2006 introduction of the GP Mental Health Care Plans[9], which aimed (among other things) to improve patient access to psychologists as well as to GPs and psychiatrists (see Chapter 14).
  - physiotherapists: rising from 10 per 1,000 encounters in 2000–01 to 12 per 1,000 in 2007–08
  - podiatrists: tripled from 1 per 1,000 encounters to 3 per 1,000
  - dietitians/nutritionists: doubling from 1 per 1,000 encounters to 2 per 1,000.[3]

The increases in referrals to physiotherapists, podiatrists and dietitians coincided with the introduction of MBS item numbers for management plans and team care arrangements in the care of patients with chronic disease[10], which enabled such patients to access specified types of allied health professionals five times per year subsidised by the MBS.

4.4 Length of consultation

In each year of BEACH there has been a subsample study of 35,000–40,000 encounters in which the GP recorded their encounter start and finishing times. Length of consultation was calculated as finish time minus start time (in minutes).

The mean and median consultation length of general practice A1 items of service were first compared for 1998–99 and 2007–08, and no change in consultation length was apparent, the mean length remaining at 14.8 minutes (95% CI: 14.6–15.1), with a median of 13.0 minutes and a range of about 1 to 110 minutes.[3]

However, between these two data points, Medicare introduced a number of new item numbers that sit outside the A1 set of items. These include chronic disease, care plans and health assessment items. Between April 2005 and March 2008, there were 1,306 BEACH face-to-face consultations at which one of these new item numbers were recorded, representing 1.3% of the 101,134 Medicare/Department of Veterans' Affairs consultations at which start and finish times were recorded. The mean length of these consultations was 25.6 (95% CI: 25.3—26.0) minutes, significantly longer than the A1 items reported above.

Considering the changing age distribution of patients at GP encounters, the relationship between patient age and consultation length was investigated (Figure 4.11).

- Consultations with children aged less than 15 years were shorter on average, at 12.2 minutes.
- Consultations with young adults (15–24 years) averaged a little over 14 minutes.
- Those with 25–44 year olds increased to an average 15.6 minutes.
- The longest were with patients aged 45–64 years (15.9 minutes).
- The average consultation length for older patients (65 years and over) was 15.2 to 15.3 minutes.

This suggests that as the older adults take up a growing proportion of GPs' workload, there will be a subtle but significant effect on total GP time required to provide the same number of services.

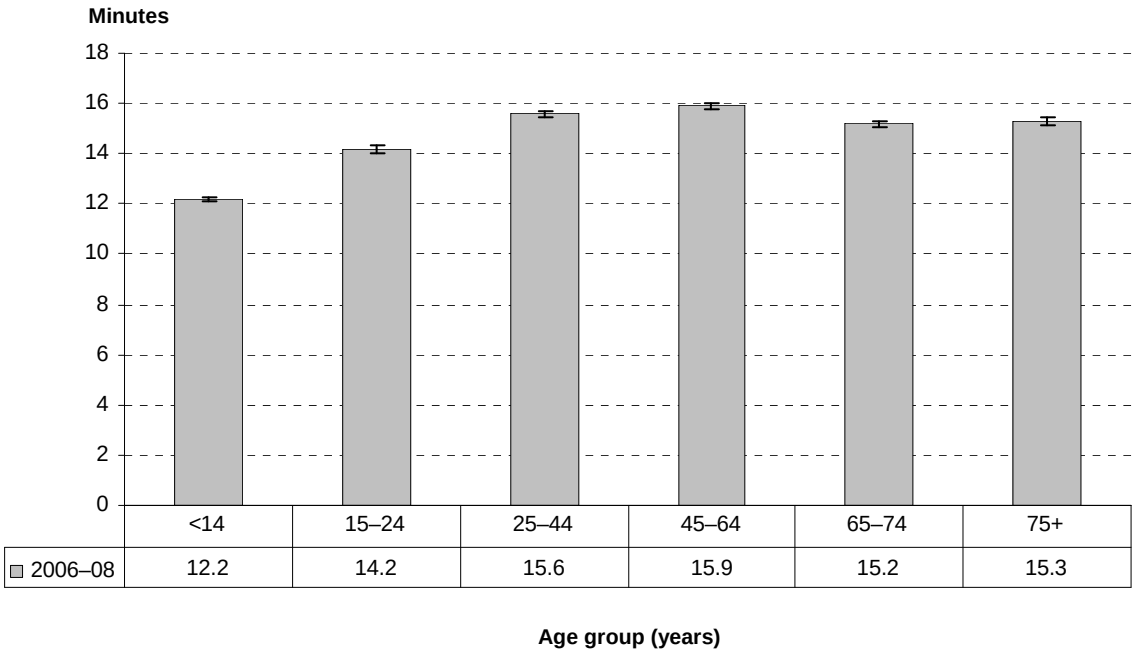
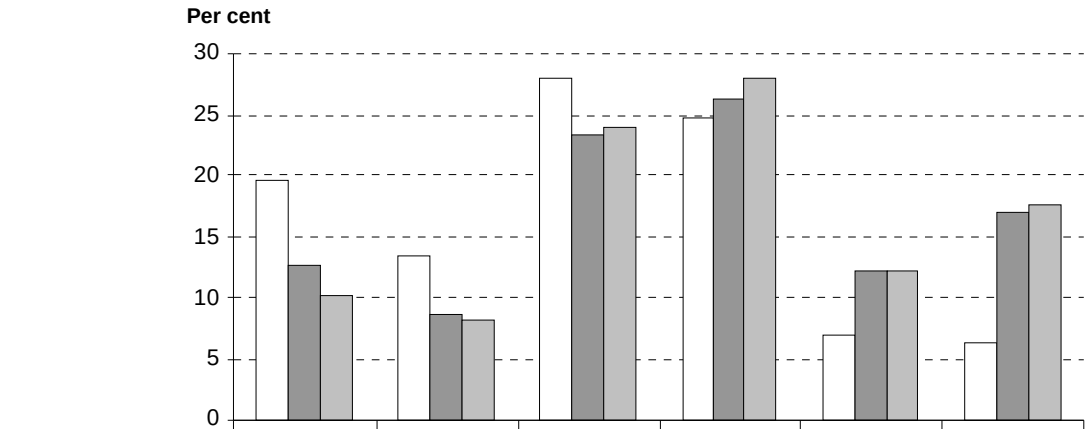


Figure 4.11: Age group-specific mean length (in minutes) of Medicare claimable GP encounters, BEACH 2006–08 (95% CI) (*n* = 66,923)

If these mean consultation lengths for each age group are applied to the total number of Medicare-claimed encounters, the proportion of the total general practice face-to-face patient time likely to have been spent with each age group in 2007–08 can be measured.

In Figure 4.12, the expected distribution of workload according to time spent multiplied by the number of visits for each age group are compared with the population age distribution and the distribution of Medicare attendances by age group. It demonstrates that:

- children account for a smaller proportion of Medicare attendances than they do the population, and since their average consultations are shorter than those with older age groups, they account for an even lesser proportion of the GP clinical face-to-face time.
- in young people aged 15–24 years there is a similar pattern though it is far less pronounced than in children.
- in the 25–44 years age group there is a far closer relationship between proportion of population, proportion of attendances and proportion of face-to-face time spent with GPs. However this group still represents a greater proportion of the population than they do visits or GP clinical time.
- in the middle age group of 45–64 years the patients start to account for a greater proportion of the Medicare attendances, and an even greater proportion of GP clinical time, than they represent in the population as a whole.
- in the older age groups this pattern continues and strengthens, to grow to an extreme in the 75+ age group who represents only 6.3% of the population but account for 17.1% of all Medicare attendances and 17.5% of GP clinical time spent in direct patient care.



	<15	15–24	25–44	45–64	65–74	75+
Percentage of pop'n	19.6	13.5	28.0	24.7	6.9	6.3
Medicare attends	12.6	8.7	23.2	26.3	12.1	17.1
2006–08 BEACH	10.2	8.2	23.9	28.0	12.2	17.5

Age group (years)

Note: Pop'n—population. BEACH: (Timed mean length of consultation in minutes for age group x total number of Medicare GP attendances) as a proportion of total calculated clinical face-to-face time spent for all Medicare GP attendances.

Sources: Population data, ABS 2008.[11] Medicare attendances: 2007 Medicare attendance data supplied by the Australian Department of Health and Ageing

Figure 4.12: Estimated proportion of total face-to-face clinical time spent by general practitioners with each patient age group, compared with the proportion of total population and with total Medicare claimed attendances.

Patient age is only one of many factors shown (through BEACH) to have an independent effect on consultation length. Others include: GP characteristics such as age, sex and general practice training status; geographic location of the practice; the sex and socioeconomic status of the patient; the complexity of the consultation; and the types of problems managed.[12] All of these factors must be considered in modelling future general practice workforce needs.

4.5 Discussion

The clinical activities of GPs have changed over the decade to 2007–08. As shown in Chapter 3, an increasing proportion of GPs' workload is being spent with older patients (particularly those aged 45–64 years and 75 years and over) and a lesser proportion with children. This is associated with the decreasing proportion of children in the Australian population, and their decreasing attendance rate. Whether their decreasing attendance rate reflects improved overall health of the child population, or a decreased likelihood to attend for minor ailments cannot be determined from this study.

Patient reasons for encounter

The changing age distribution of patients at encounters with GPs in itself affects the reasons people give for attending, and the content of the encounters. Patient reasons for encounter changed over the decade, with an increase in the number of reasons given (suggesting an increase in multiple problem management, which was supported by the results), and a move towards more requests for services (for example, check-ups and prescriptions), with a parallel decrease in presentations of symptoms and complaints.

Where the patient presents for follow-up care of a previously diagnosed chronic disease, a request for a check-up and a request for prescription may often be interchangeable because most patients accept they need to be checked before being given their repeat prescriptions. However, the introduction of Medicare item numbers specifically for annual health assessments of older people, and the one-off health assessment of those aged 45–49 years, could also explain a proportion of the increase in the frequency of patient requests for check-ups. Publicity campaigns urging people to have their skin checked (discussed in Chapter 13), and warning of sexually transmitted infections (see Chapter 15) may also have contributed to patient presentations for check-ups.

The increase in patient requests for results of tests and investigations (as RFEs) may suggest a move away from provision of results over the phone, and towards patient attendance to receive them. The privacy legislation released at the end of 2001[13] may have influenced the likelihood of patient callback for test results. The increasing emphasis on the quality of chronic disease management, through the introduction of specific chronic disease-based Medicare item numbers (see Chapter 3) also may have led to more frequent callbacks for face-to-face discussion of the results with the patient.

Problems managed

In line with the increase in patient requests, there has been an increase in the GP management rate of general check-ups. However, an increasing proportion of the GP workload is also being spent in the management of chronic problems. This has been reflected in higher chronic disease detection rates (that is, more new chronic problems diagnosed), which may have also improved as a result of the program to encourage 'well-patient' check-ups, as noted above.

There has also been an increasing number of follow-up consultations for previously diagnosed chronic diseases. Most chronic diseases, once diagnosed require long term or life-long ongoing care, so the earlier the disease is detected the more GP services will be used in its management over a lifetime.

A well-diagnosed ageing population will over time result in increased prevalence of multimorbidity[14], providing the GP with more patients with complex health needs. As a result, the chronic disease item numbers more recently introduced to the MBS are likely to become far more popular with GPs. This has implications for the future GP workforce, as this chapter has demonstrated that non-A1 GP items of service (such as chronic disease item numbers) are on average about 10 minutes longer than the average A1 items of service.

The decrease in management rate of infections, and in the proportion of the GP workload spent in follow-up care for non-chronic conditions could be the result of fewer encounters with children, and broad public and GP education campaigns about the self-limiting nature of some acute problems (particularly upper respiratory tract infection). It may also indicate improved empowerment of the patient for self-care of non-chronic problems.

There were increased management rates over the decade for many of the commonly managed National Health Priority Areas, including hypertension, lipid disorders, diabetes and depression. Each of these are discussed in the chapters that follow.

Management

The decrease in the number of prescriptions given by GPs was only partially explained by the increase in medications supplied directly to the patient by the GP, and there was no change in the rate at which over-the-counter drugs were advised. The medications supplied by GPs are largely vaccines[3], so the increase in supply frequency is not surprising in light of the growing number of vaccines provided free as part of Australian Government policies. Other factors which may have influenced the GP prescribing rate include:

- an increasing number of products being made available for over-the-counter purchase, and an increased availability of combination products, where two types of medication are combined (for example, the combination of an ACE inhibitor with a diuretic). Where they are combined, only one prescription is written for the combined product, rather than one for each individual product
- the increase in the average number of repeats ordered for a prescribed medication: the proportion of prescriptions being provided with the maximum number (five) repeats significantly increased over the study period, and the proportion with no repeats, one repeat or two repeats significantly decreased.[3] When more repeats are provided with the prescription another prescription for the drug will be required less often, influencing the overall GP prescribing rate and possibly the patient attendance rate
- the increased co-contribution required of Commonwealth concession cardholders for medications provided under the PBS, in parallel with the growth of discount pharmacies, may have made it cheaper for people to buy over-the-counter medications than fill a prescription under the PBS. This would result in a decrease in prescriptions for some medications. For example, there was a significant decrease in prescribing rates of paracetamol, and paracetamol+codeine over the decade of this study.[3]

Changes in patterns of prescribing for specific morbidities are discussed in many of the following chapters.

This chapter has shown that between 2000–01 and 2007–08, there was a decrease in the rate of clinical treatments such as advice, education and counselling. However this decline was not linear over the period. Their frequency peaked in 2004–05, and then declined in 2005–06. The 2006–07 result remained consistent with the 2005–06 period, and then in 2007–08 the rate again increased significantly.[3] The fact that this pattern was only apparent in rates of advice and education, and not in provision of psychological counselling, suggests the decrease in 2004–05 was related to increased use of practice nurses, after introduction of the Medicare practice nurse item numbers.[15] The gradual increase since that time may indicate a settling in period occurred, where the roles of GPs and practice nurses in provision of advice and education became better defined.

Pathology test order rates steadily increased between 2000–01 and 2007–08, and there has been no indication of a slowing in this growth. Ongoing care of chronic disease often requires regular pathology tests, to assess for disease progression, to ensure compliance, measure effectiveness of treatment, and monitor possible side or adverse effects of treatment. So it is not surprising that pathology order rates have steadily increased, and would be expected to continue to do so as the Australian population ages, chronic problems are newly diagnosed, and ongoing medical care established. Increased medico-legal concerns among

GPs (and doctors at large) may also prompt additional testing. Pathology test ordering for selected problems is reported in more detail in Chapter 5.

While orders for imaging also increased over the same period, the increase was far smaller, and could well represent increased use in the diagnostic process. For example, Chapter 11 reports increased imaging ordered in the management of unspecific arthritis, an increase in management rate of osteoarthritis, and increased imaging for osteoporosis. Such increases may reflect a greater need to have evidence of such diseases to ensure correct classification of the problem as a chronic disease.

While GP rates of referral to specialists did not change between 2000–01 and 2007–08, staying steady at about 5 to 6 per 100 problems managed, referrals to allied health professionals increased by about 50%. The BEACH 10 year data report[3] shows that this increase built steadily in each year, but that the increase was largest in the final 2 years (2006–07 and 2007–08). This was most apparent in referrals to physiotherapists, psychologists, podiatrists and dietitians. This suggests that the introduction of MBS coverage for patients referred to such professionals in the management of chronic disease has had a positive effect on patient access to these services, and may have improved the team management of some patients in line with the enhanced primary care item number objectives (see Chapter 3).

4.6 Conclusion

The findings in this chapter suggest that Australian Government initiatives, together with changes in population need may be influencing the care provided to the community by general practice. The chapter provides an overview against which the reader can consider general practice management of specific problems, particularly those included as National Health Priority Areas, in the following chapters.

Suggested chapter citation

Britt H & Harrison C 2009. GP clinical activity. In: Britt H & Miller GC (eds). General practice in Australia, health priorities and policies 1998 to 2008. General practice series no. 24. Cat. no. GEP 24. Canberra: Australian Institute of Health and Welfare.

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