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SYDNEY

A decade of Australian general practice activity

2006–07 to 2015–16

Family Medicine Research Centre



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A decade of Australian general practice activity 2006–07 to 2015–16



Bettering the Evaluation and Care of Health

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Summary

BEACH (Bettering the Evaluation and Care of Health) is a continuous national study of general practice activity in which ever-changing random samples of about 1,000 individual general practitioners (GPs) participate each year. Each GP records details of 100 consecutive encounters with consenting patients. BEACH began in April 1998 and closed in June 2016 after 18 years of continuous data collection. Since BEACH began it has measured and reported major changes in Australian general practice including the changes in GP and practice characteristics, patients at encounters, reasons for encounters, problems managed and the management provided.

From June 2006 to June 2015, the population of Australia rose by 17%, from 20.6 million to 24.1 million, and the proportion aged 65 years and over rose by 33% (from 2.7 to 3.6 million). At least one GP consultation was claimed by 83% of the population in 2006–07 and this increased to 87% in 2015–16. The number of Medicare-claimed GP consultation items (excluding practice nurse items) grew by 38% from 103.4 million to 143.0 million. The average number of GP visits per capita rose from 5.0 to 6.0, and the average for those who visited at least once rose from 6.0 to 6.9 visits.

Administrative statistics provide information about the frequencies and costs of visits claimed for GP services and some prescribed pharmaceuticals. BEACH gives us an understanding of changes in the content of encounters and the services and treatments GPs provide.

This book presents results of each of 10 years of BEACH data to identify changes over the decade 2006–07 to 2015–16. The report is based on details of almost 1 million GP–patient encounters from 9,721 participating GPs. Estimates are given of the national effect of change in GP activity through extrapolation of the BEACH results to the total Medicare GP consultations claimed in the first and last year of the decade.

Released in parallel with this report is a more detailed report of results for 2015–16 in the BEACH program, *General practice activity in Australia 2015–16*.¹ This companion report contains a feature chapter investigating changes in the care of middle aged people aged 45–64 years in general practice over 16 years, 2000–01 to 2015–16 (see Chapter 14).

The GP participants and their practices (Chapter 4)

Reflecting changes in the recognised GP workforce, females made up an increasing proportion of GP participants (34% in 2006–07 to 45% in 2015–16), as did the proportion aged 55 years and over (from 35% to 45%). Average hours in patient care decreased from 38 to 37 hours per week, with a decrease from 40% to 28% of GPs working more than 40 hours.

The proportion of GP participants who graduated from their primary medical degree in Australia decreased from 74% to 61%. GP participants holding Fellowship of the Royal Australian College of General Practitioners increased from 46% to 63%.

The move toward larger practices continued, with decreased proportions of participants working in practices of 2–4 individual GPs (36% to 24%), while the proportion in practices of 10 or more GPs almost doubled, from 16% to 29%. The proportion using deputising services for some or all of their after-hours patient care increased from 48% to 57%.

The encounters (Chapter 5)

As a proportion of all Medicare Benefits Schedule (MBS)/Department of Veterans' Affairs (DVA)-claimable recorded consultations, short surgery consultations, chronic disease management items, health assessments, and GP mental health care, all increased significantly while standard surgery consultations decreased significantly.

Over the decade, the mean length of consultations for all MBS/DVA-claimable encounters significantly increased from 14.1 minutes to 14.9 minutes, and the median length increased from 12 to 13 minutes.

The patients at encounters (Chapter 6)

There was no significant change in the proportion of encounters with male or female patients. As a proportion of all encounters, those with patients aged 15–24 years decreased from 9.1% to 7.9%, while those with patients aged 65–74 years increased from 12.7% to 14.7%. Extrapolated, this suggests that nationally there were approximately 8 million more encounters with patients aged 65–74 years in 2015–16 than a decade earlier. This increase is likely due to the wave of 'baby boomers' entering this age group, and the overall increase in average number of GP visits per capita over this decade. The proportion of encounters that were with Repatriation Health Card holders decreased from 3% to 2%, probably due to declining numbers of veterans and their partners.

A patient providing just one reason for encounter was most common in all years of the decade. The proportion of encounters where two patient reasons for encounter (RFEs) were recorded increased from 28% to 30%. RFEs related to infections significantly decreased, while those describing processes of care increased, particularly requests for 'medications, treatments and therapeutics' and test results. There was a large increase in requests for administrative procedures.

Problems managed at encounters (Chapter 7)

In 2015–16, GPs managed 154 problems per 100 encounters, significantly more than a decade earlier (149 per 100). The combination of the increased number of problems managed at encounters and the increased number of GP visits, suggests that GPs managed 67 million more problems at patient encounters in Australia in 2015–16 than in 2006–07.

Across the decade, the most frequently managed problems were hypertension, check-up and upper respiratory tract infection. Significant increases occurred in management rates of general check-up, depression, back complaint, prescription, anxiety, test result, administrative procedure, vitamin/nutritional deficiency, and abnormal test result. The last of these is likely to be due to the increasing number of tests per order, which increases the chance an abnormal result will be reported, and consequently managed.

There were significant decreases in management rates of hypertension, oral contraception, ischaemic heart disease, cardiovascular check-up and fracture.

The management rate of chronic conditions in 2015–16 did not differ from the rate in 2006–07. Those most commonly managed were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis, and lipid disorder. There were increased management rates of depressive disorder, chronic back pain, and unspecified chronic pain. Extrapolation of these findings to all MBS-claimed GP consultation items suggests that compared with a decade earlier, in 2015–16 there were:

- 21 million more chronic problem management occasions in general practice, even without a change in their management rate per 100 encounters by GPs
- 2.2 million more GP management occasions of depressive disorder, 670,000 more of hypothyroidism/myxoedema, 400,000 more of chronic back pain, and 400,000 more of unspecified chronic pain.

Overview of changes in management of problems (Chapters 8–12)

All management actions are reported as both rates per 100 encounters and per 100 problems managed. The former is used to extrapolate the national effect of an increase while the latter is used to describe changes in how GPs actually manage the problems they treat. Even without a change in rates of clinical actions the total number of these actions undertaken nationally will still increase due to the increased number of problems managed combined with the increased visit rate.

The changes in management actions (as rates per 100 problems managed) are summarised below.

- **Medications** prescribed/supplied/advised did not change significantly (from 68 to 66 per 100 problems). However, there were some notable changes:
 - *Prescribed medications* decreased significantly from 56 to 53. However, due to the increased attendance rate, we estimated there were 31 million more prescriptions given nationally in 2015–16 than a decade earlier.
 - *The rate of GP-supplied medications* was not significantly different in 2006–07 compared with 2015–16 (6.0 to 5.9) but this rate varied widely through the decade.
 - The rate of *advised over-the-counter (OTC) medications* did not change over the decade.
- **Clinical treatments** were provided at a significantly higher rate in 2015–16 (25 per 100 problems managed) than in 2006–07 (20 per 100). Combined with the increased number of problems managed per encounter, the rate of clinical treatments increased from 30 to 39 per 100 encounters, suggesting about 25 million more were provided nationally in 2015–16 than in 2006–07.
- **Procedures** undertaken significantly increased, from 10 to 11 per 100 problems managed, and combined with the increased number of problems managed, rose from 15 to 18 per 100 encounters. The extrapolated effect was about 10 million more procedures nationally in 2015–16.
- **Referrals** to medical specialists rose from 5 to 6 per 100 problems managed, and those referred to allied health services increased from 2 to 4. This increase, combined with more problems managed per encounter and more encounters overall, suggests about 10 million more GP referrals were made nationally in 2015–16 than in 2006–07, which included about 5 million more to medical specialists and 5 million more to allied health services.
- **Pathology tests/test batteries** ordered increased by 8%, from 29 tests/batteries to 31 per 100 problems managed. Tests ordered per 100 encounters increased from 42 to 48, which suggests about 24 million more tests/batteries were ordered nationally in 2015–16.
- **Imaging tests** ordered increased from 6 to 7 per 100 problems. Total imaging orders per 100 encounters increased significantly from 9 to 11, suggesting nationally there were 6 million more imaging tests ordered in 2015–16 than in 2006–07.

Medications (Chapter 9)

Notable changes in medications prescribed/advised/supplied (described as rates per 100 problems managed) in 2015–16 compared with 2006–07, are summarised below.

- Drug types prescribed less often included: antibacterials for systemic use, agents acting on the renin-angiotensin system, drugs for obstructive airway disease, anti-inflammatory and antirheumatic medications, sex hormones and modulators of the genital system, beta blocking agents, calcium channel blockers, ophthalmologicals and diuretics. Individual drugs prescribed less often included amoxicillin, plain paracetamol and paracetamol/codeine combination products, temazepam, roxithromycin, and ibersartan.
- Drug types prescribed more often included psychoanaleptics, digestive drugs for acid-related disorders, systemic corticosteroids and antiepileptic drugs. Individual drugs prescribed more often included esomeprazole, oxycodone, rosuvastatin, pantoprazole, prednisolone, oxycodone/naloxone, and pregabalin.

- Five repeats were recorded for a greater proportion of prescriptions, while the proportion of medications with one repeat or three to four repeats significantly decreased.
- Nine of the top 10 GP-supplied medications were vaccines, and rates of most childhood vaccines increased. There was a significant increase in GP supply of vitamin B12.
- The overall rate of advice for OTC medications did not change but there was a significant rise in the advised purchase of ibuprofen and vitamin D3 (cholecalciferol).

Other (non-pharmacological) treatments (Chapter 10)

Clinical treatments

- General advice and education was the most frequently recorded clinical treatment throughout the decade, provided at a rate of 4.1 per 100 problems managed in 2015–16. There was no significant change in the rate between 2006–07 and 2015–16.
- There were significant increases in the rate GPs provided advice/education about medication and treatment, counselling/advice about lifestyle and about health/body. The rate of GP-provided administrative procedures/documentation almost doubled.

Procedures

The most frequently recorded group of procedures throughout the decade was excision/removal tissue/biopsy/destruction/debridement/cauterisation. There was an increase in the rate of procedures undertaken, which was partially caused by a four-fold in international normalised ratio (INR) tests, and significant increases in preventive procedures/high risk medication, and local injection/infiltrations.

Referrals (Chapter 11)

The likelihood that a problem managed at encounter would be referred, increased from 8% to 10% over the decade. The rate of referral to medical specialists rose from 5 per 100 problems managed in 2006–07 to 6 per 100 in 2015–16. The rate of referral to allied health services increased from 2 to 4 per 100 problems managed. Referrals to psychologists rose almost three-fold and those to podiatrists/chiropodists doubled. Referrals to physiotherapists and dietitians/nutritionists also increased.

Tests and investigations (Chapter 12)

Pathology test orders

- There was no change in the proportion of problems for which pathology was ordered (13% in 2006–07 and 14% in 2015–16) but there was an 8% increase in the number of tests/batteries ordered, due to GPs ordering more tests per problem once the decision to order had been made.
- There was no change in the proportion of encounters at which pathology was ordered (17% in 2006–07 and 18% in 2015–16), but increased GP visit rates meant that pathology was ordered at about 8 million more encounters nationally in 2015–16 than 10 years earlier. The rate of ordering increased from 42 to 48 tests per 100 encounters, suggesting there were 24 million more tests ordered nationally in 2015–16 than a decade earlier.

Imaging orders

- The likelihood of GPs ordering imaging at an encounter rose from 8% to 9%, suggesting orders were placed at 5 million more encounters nationally in 2015–16 than a decade earlier.
- There was a move away from ordering diagnostic radiology toward ultrasound imaging. Ultrasounds were the most commonly ordered imaging test, and orders increased from 3 to 5 orders per 100 encounters, a national increase of about 4 million ultrasound orders. The rates of computerised tomography and magnetic resonance imaging, while accounting for a lower proportion of total orders, also increased over the decade.

Substudies of patient risk factors (Chapter 13)

Body mass index

- **Adults** ($n = 30,000$ – $32,000$ per year): Prevalence of obesity in sampled adult patients (aged 18+ years) increased significantly from 24% in 2006–07 to 29% in 2015–16. The prevalence of overweight (35%) did not change and there was a marginal decrease in the prevalence of underweight (from 3% to 2%). Prevalence of normal weight decreased significantly from 39% to 35%.
- **Children** ($n = 3,000$ – $4,000$ per year): There was no change in the prevalence of obesity, overweight, or underweight among sampled children (aged 2–17 years) over the decade.

Smoking ($n = 31,000$ – $34,000$ per year): Among sampled adults (aged 18+ years), there was a significant decrease in prevalence of current daily smoking and occasional smoking from 16% and 3% respectively in 2006–07, to 13% and 2% in 2015–16.

Alcohol consumption ($n = 30,000$ – $34,000$ per year): Among sampled adults (aged 18+ years), prevalence of at-risk levels of alcohol consumption declined from 27% in 2006–07 to 23% in 2015–16, and there was an increase in non-drinkers from 28% to 33%.

Risk profile in adults ($n = 29,000$ – $32,000$ per year): There was a significant increase in the proportion of sampled adults with one risk factor, from 50% to 54%, in parallel with significant decreases in the proportion with two (from 20% to 19%), and three risk factors (from 4% to 3%).

Attending population prevalence estimates: We estimate the prevalence of risk factors for patients who attend a GP at least once in the surveyed year by applying statistical adjustment for adult population attendance rates by age–sex. This adjustment is available for data collected from 2007–08 to 2015–16. Over this time, in the population who attended general practice at least once, the prevalence of:

- obesity increased from 23% to 28%
- daily smoking decreased from 19% to 16%
- at-risk alcohol consumption decreased from 29% to 25%.

Among those who attended a GP at least once, patients with only one risk factor increased from 48% to 52%, and there was a corresponding decrease in the proportion of patients with two (22% to 20%) and three risk factors (5% to 4%).

1 Introduction

This report is the 41st and last book in the General practice series from the Bettering the Evaluation of Care and Health (BEACH) program. It includes summary results from the most recent 10 years of the program, from 2006–07 to 2015–16 inclusive. Released in parallel with this report is a more detailed report of results for 2015–16 in the BEACH program, *General practice activity in Australia 2015–16*,¹ available at <purl.library.usyd.edu.au/sup/9781743325131>.

BEACH was a continuous national study of general practice activity in which ever-changing random samples of about 1,000 general practitioners (GPs) participated each year. Each participating GP recorded details of 100 consecutive GP–patient encounters with consenting patients. The final BEACH database includes records for almost 1.8 million GP–patient encounters from 17,707 GP participants, representing 10,798 individual GPs. This book investigates results from each of the past 10 years of data to identify changes that have occurred over the decade 2006–07 to 2015–16. This report is based on information for 972,100 GP–patient encounters provided by 9,721 participating GPs.

After 18 years of continuous data collection, the BEACH program closed in June 2016. It began in April 1998 and was the culmination of about 20 years of research and development work at the University of Sydney. Initially the program was conducted by the Family Medicine Research Centre (FMRC), University of Sydney, in collaboration with the Australian Institute of Health and Welfare (AIHW), under the *AIHW Act*, but from April 2011, it was conducted by the FMRC alone. BEACH was supported financially by government and private industry (see Acknowledgments).

Researchers and the public can continue to access reports from the BEACH data set (see Section 1.2). A discussion of principles for consideration in future general practice data collection is included in the Preface of *General practice activity 2015–16*.¹

The structure of this report follows the pattern of past annual BEACH reports. Ten years of results are provided about the GPs, the patients and the problems managed, followed by an overview of management, and specific chapters for each type of management action. Changes in prevalence of some patient risk factors are also presented.

Each chapter contains an overview of the section (including definitions where relevant) and a brief description of the major findings, followed by the results tables. In the tables, statistically significant changes between 2006–07 and 2015–16 are marked. The national effect of significant change can be estimated by extrapolating the BEACH results to all GP Medicare-claimed encounters. The method adopted for extrapolation of the effect of a change is described in Section 2.9. Examples of extrapolation of a measured change are also provided in each of Chapters 5 to 12 inclusive. The reader can apply this method to any significant change in the BEACH data presented in terms of rate per 100 encounters, to gain an estimate of the size of the national effect of this change.

In this report, changes over time in, for example, GP management actions for a specific problem, or changes in the problems managed for a selected group of patients, are not generally investigated. However, such analyses can be requested (see Section 1.2).

1.1 Background

GPs are usually the first port of call in the Australian healthcare system. Payment for GP visits is largely on a fee-for-service system, there being no compulsory patient lists or registration. People are free to see multiple practitioners and visit multiple practices of their choice. There is a universal medical insurance scheme (managed by Medicare Australia), which covers all or most of an individual's costs for a GP visit.

Changes in demographics, health expenditure and provision of general practice services over the decade are outlined below.

Population changes

The Australian population increased by 17% between June 2006 (20.6 million) and June 2015 (24.1 million).² Over the same period:

- the proportion of the population aged 65 years and over increased by 33%, from 2.7 million people to 3.6 million²
- the number of Australians aged 85 years and over increased by 48% from 319,000 people to 472,000.²

Australia's population is projected to change significantly over the coming decades. A greater proportion of the population will be aged 65 and over, increasing from 15% of the total population today, to about 23% over the next 40 years.³

This is projected to have significant implications for health and aged care service demand.³ As life expectancy continues to improve, people are living longer with disease, so a greater part of the GP workload will involve management of older patients with multiple chronic conditions.

Health expenditure

- In 2013–14, Australia's health expenditure was \$154.6 billion,⁴ \$60.5 billion (78%) more than in 2005–06 (\$86.9 billion).⁵
- The average amount spent per capita was \$6,639 in 2013–14, increasing from \$4,268 in 2005–06.^{4,5}
- Health expenditure as a proportion of gross domestic product (GDP) increased, from 8.7% in 2005–06 to 9.8% in 2013–14.^{4,5}
- In 2005–06, governments funded more than two-thirds (67.8%) of health costs, compared with 60.8% in 2013–14.^{4,5}

General practice services

- Expenditure on general practice services (total non-referred attendances including GP/vocationally recognised GP, Enhanced Primary Care, practice nurse items, and other items) increased from \$4.0 billion in the 2006–07 financial year to \$6.8 billion in 2014–15.⁶
- Changes in the number of practising GPs in Australia over the last decade are difficult to calculate due to the varying methods used to count GPs. According to reports from the AIHW, in 2005 there were 22,589 primary care practitioners in Australia (including but not limited to GPs),⁷ while in 2014 there were 26,885 medical practitioners self-identifying as GPs, making up 110.6 full-time equivalents (FTE, based on a 40-hour week) per 100,000 population.⁸
- In the April 2015 to March 2016 year, 86.9% of the Australian population claimed at least one GP service from Medicare (personal communication, Australian Government Department of Health [DoH], May 2016). In the same period, Medicare paid rebates for about 143.0 million claimed general practice service items (total non-referred attendances excluding practice nurse items),⁹ at an average of about 6.0 GP visits per head of population or 6.9 visits per person who visited at least once. This equates to about 2.8 million GP–patient encounters per week.
- A decade earlier, in the 2006–07 financial year, 82.7% of the population claimed at least one GP service from Medicare, and total Medicare claims for GP–patient encounters numbered 103.4 million, an average attendance of 5.0 visits per head of population or 6.0 visits per attendee.⁶

Medicare statistics provide information about the frequencies and costs of visits claimed from Medicare for GP services. BEACH has given us an understanding of the content of GP–patient encounters and the services and treatments that GPs provide. The BEACH program aimed to:

- provide a reliable and valid data collection process for general practice that is responsive to the ever-changing needs of information users
- establish an ongoing database of GP–patient encounter information
- assess patient risk factors and health states, and their relationship with service activity.

Users of BEACH data might wish to consolidate information from multiple sources. Readers need to be aware of how the BEACH data differ from those drawn from other sources. A summary of differences between the BEACH data sets and those in national administrative data sets and studies is available in *General practice activity in Australia 2015–16* (Sections 1.2 and 1.3).¹

1.2 Access to BEACH data

Public domain

This annual publication provides a comprehensive view of general practice activity in Australia. The BEACH program has generated many papers on a wide variety of topics in journals and professional magazines. All published material from BEACH is available through:

<sydney.edu.au/medicine/fmrc/publications>.

Throughout the 18 years of the program, a section at the bottom of each encounter form has been used to investigate aspects of patient health or healthcare delivery not covered by general practice consultation-based information. These substudies are referred to as SAND (Supplementary Analysis of Nominated Data). The SAND methods are described in Section 2.6. Abstracts of results and the research tools used in all SAND substudies have been published. Those from:

- April 1998 to March 1999 were published in *Measures of health and health care delivery in general practice in Australia*¹⁰
- April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*¹¹
- August 2006 to March 2015 were published in each of the BEACH annual reports^{12–20}
- April 2015 to March 2016 are included in Chapter 15 of *General practice activity in Australia 2015–16*.¹

Abstracts of results for all SAND substudies are also available on the FMRC website <sydney.edu.au/medicine/fmrc/publications/sand-abstracts> where you can search by topic.

Purchasing reports

Following closure of the BEACH program, individuals and organisations will continue to be able to purchase standard reports or other ad hoc analyses. Charges are outlined at <sydney.edu.au/medicine/fmrc/beach/data-reports/for-purchase>. Contact details are provided at the front of this publication.

Analysis of the BEACH data is a complex task. The FMRC designed standard reports that cover most aspects of a subject under investigation. Examples of a problem-based standard report, a group report and a pharmacological-based standard report for a single year's data, are available at <sydney.edu.au/medicine/fmrc/beach/data-reports/for-purchase>. Customised data analyses can be done where the specific research question is not adequately answered through standard reports.

2 Methods

In summary:

- each year, BEACH involved a new random sample of about 1,000 GPs
- each GP recorded details of about 100 doctor–patient encounters of all types
- the GP sample was a rolling (ever-changing) sample, with about 20 GPs participating in any one week, 50 weeks a year (with two weeks break over Christmas)
- each GP could be selected only once per Quality Improvement & Continuing Professional Development (QI & CPD) Program triennium (that is, once in each 3-year period)
- the encounter information was recorded by the GPs on structured paper encounter forms (Appendix 1)
- GP participants also completed a questionnaire about themselves and their practice (Appendix 2).

2.1 Sampling methods

The source population included all vocationally registered GPs and all general practice registrars who claimed a minimum of 375 Medicare general practice items of service in the most recently available 3-month Medicare data period (which equates to 1,500 such claims in a year). This ensured inclusion of the majority of part-time GPs, while excluding those who are not in private practice but claim for a few consultations a year.

The Medicare statistics section of the Australian Government DoH updated the sample frame quarterly from the Medicare claims data. They then removed from the sample frame any GPs already randomly sampled in the current triennium, and drew a new sample from those remaining in the sample frame. This ensured the timely addition of new entries to the profession, and timely exclusion of those GPs who have stopped practising, have already participated or been approached in the current triennium.

2.2 Recruitment methods

The randomly selected GPs were approached by letter, posted to the address provided by the DoH.

- Over the following 10 days, the telephone numbers generated from the Medicare data were checked using the electronic white and yellow pages. This was necessary because many of the telephone numbers provided from the Medicare data were incorrect.
- The GPs were then telephoned in the order they were approached and, referring to the approach letter, asked whether they will participate.
- This initial telephone contact with the practice often indicated that the selected GP had moved elsewhere, but was still in practice. Where a new address and/or telephone number could be obtained, these GPs were followed up at their new address.
- GPs who agreed to participate were set an agreed recording date several weeks ahead.
- A research pack was sent to each participant before the planned start date.
- Each GP received a telephone reminder early in the agreed recording period – this also provided the GP with an opportunity to ask questions about the recording process.
- GPs could use a 'freecall' (1800) number to ring the research team with any questions during their recording period.
- Non-returns were followed up by regular telephone calls for 3 months.

- Participating GPs earned clinical audit points towards their QI & CPD requirements through the Royal Australian College of General Practitioners (RACGP) and/or the Australian College of Rural and Remote Medicine (ACRRM). As part of this QI process, each GP received an analysis of his or her results compared with those of nine other de-identified GPs who recorded at about the same time. Comparisons with the national average and with targets relating to the National Health Priority Areas were also provided. In addition, GPs received some educational material related to the identification and management of patients who smoke or consume alcohol at hazardous levels. Additional points could be earned if the participant chose to do a follow-up audit of smoking and alcohol consumption among a sample of patients about 6 months later.

2.3 Ethics approval and informed patient consent

Ethics approval for this study in 2015–16 was obtained from the Human Ethics Committee of the University of Sydney.

Although the data collected by the GPs were not sufficient to identify an individual patient, informed consent for GP recording of the encounter details was required from each patient. GPs were instructed to ensure that all patients presenting during their recording period were provided with a Patient Information Card (Appendix 3), and to ask the patient if they were happy for their data to be included in the study. If the patient refused, details of the encounter were not recorded. This was in accordance with the ethics requirements for the BEACH program.

2.4 Data elements

BEACH includes three interrelated data collections: GP characteristics, encounter data and patient health status. An example of the form used to collect the encounter data and the data on patient health status is included in Appendix 1. The GP characteristics questionnaire is provided in Appendix 2. The GP characteristics and encounter data collected are summarised below. Patient health status data are described in Section 2.6.

GP profile form (Appendix 2)

- **GP characteristics:** age and sex, years in general practice, number of direct patient care hours worked per week, country of graduation, general practice registrar status, Fellow of the RACGP status, Fellow of the ACRRM status, use of computers at work for clinical purposes, work undertaken in other clinical settings, number of practice locations worked in a regular week.
- **Practice characteristics:** postcode of major practice, number of individual and number of full-time equivalent (FTE) GPs working in the practice, number of individual and number of FTE practice nurses working in the practice, usual after-hours care arrangements, other health services located at the major practice.

Encounter recording form (Appendix 1)

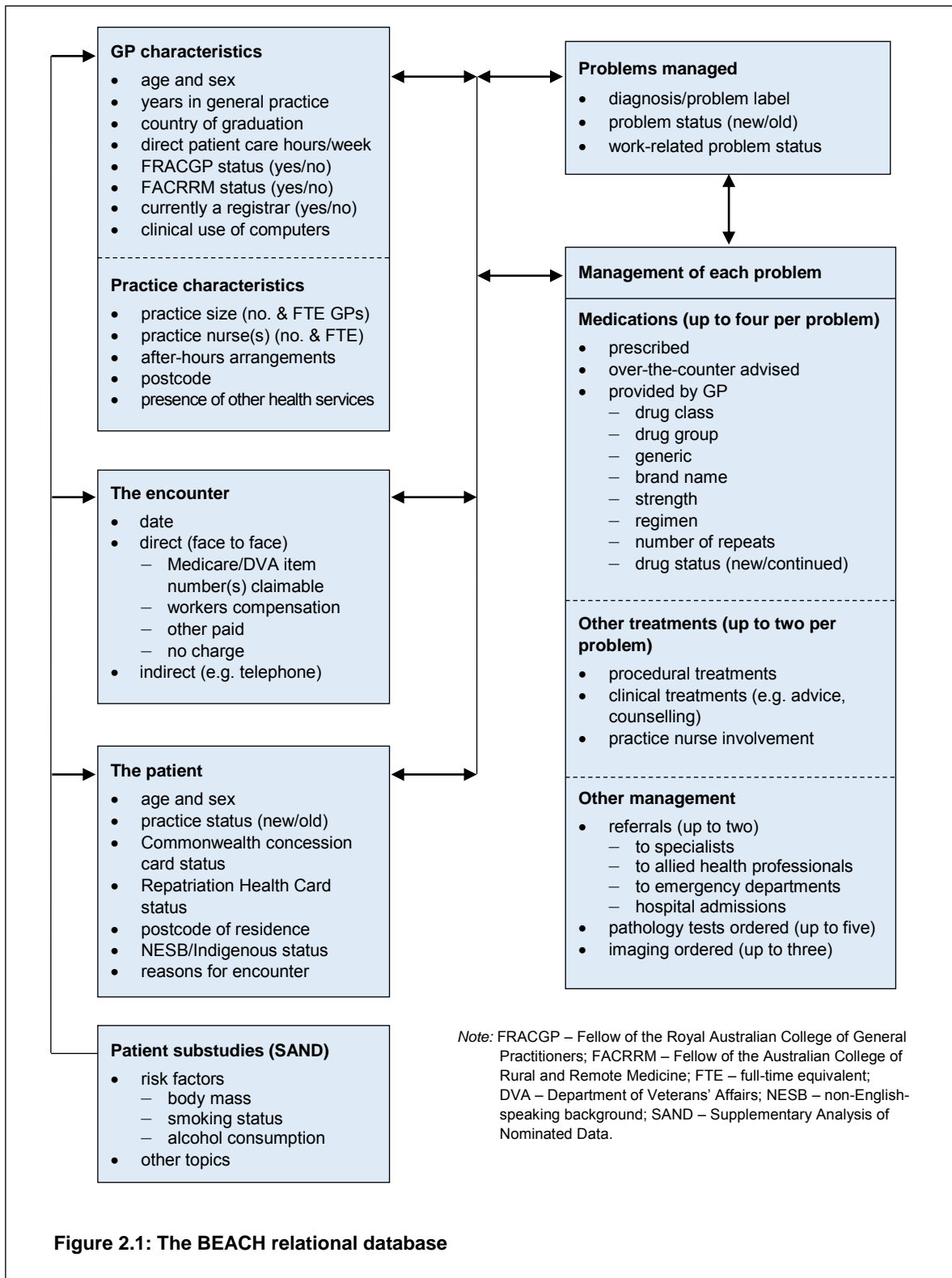
- **Encounter data:** date of consultation, type of consultation (direct/indirect) (tick box options), up to three Medicare Benefits Schedule (MBS)/Department of Veterans' Affairs (DVA) item numbers (where applicable), and other payment source (where applicable) (tick box options).
- **Patient data:** date of birth, sex and postcode of residence. Tick boxes (yes/no options) were provided for Commonwealth concession card holders, holders of a Repatriation Health Card (from DVA), non-English-speaking background (patient self-reported that a language other than English is the primary language at home), Aboriginal person (self-identification), and Torres Strait Islander person (self-identification). Space is provided for up to three patient reasons for encounter (RFEs) (see Glossary).

- The **problems managed** at encounter (at least one and up to four). Tick boxes were provided to denote the status of each problem as new or continuing for the patient.
- **Management of each problem**, including:
 - medications prescribed, supplied by the GP and advised for over-the-counter (OTC) purchase including brand name, form (where required), strength, regimen, status (new or continuing medication for this problem), number of repeats
 - other treatments provided for each problem, including counselling, advice and education, and procedures undertaken, and whether the recorded other treatment was provided by a practice nurse (tick box)
 - new referrals to medical specialists, allied health services, emergency departments, and hospital admissions
 - investigations, including pathology tests, imaging, and other investigations ordered.

2.5 The BEACH relational database

The BEACH relational database is described diagrammatically in Figure 2.1. Note that:

- all variables can be directly related to the encounter, the GP and the patient characteristics
- all types of management are directly related to the problem being managed
- RFEs have only an indirect relationship with problems managed, as a patient may have described one RFE (such as 'repeat prescriptions') that relates to multiple problems managed, or several RFEs (such as 'runny nose' and 'cough') that relate to a single problem managed (such as upper respiratory tract infection) (see Section 6.3).



2.6 Supplementary Analysis of Nominated Data

A section at the bottom of each recording form investigated aspects of patient health or health care delivery in general practice not covered by the consultation-based data. These substudies are referred to as SAND (Supplementary Analysis of Nominated Data).

- Each year, the 12-month data period was divided into 10 blocks, each of 5 weeks, with three substudies per block. The research team aimed to include data from about 100 GPs in each block.
- Each GP's pack of 100 forms was made up of 40 forms that ask for the start and finish times of the encounter, and included questions about patient risk factors: patient height and weight (used to calculate body mass index, BMI), alcohol intake and smoking status (patient self-report). The methods and results of topics in the SAND substudies for alcohol consumption, smoking status and BMI are reported in Chapter 13. The start and finish times collected on these encounters are used to calculate the length of consultation. The length of consultation for Medicare-claimable encounters is reported in Section 5.3.
- The remaining 60 forms in each pack were divided into two blocks of 30, so each SAND block included about 3,000 records. Some topics were repeated to increase sample size. Different questions were asked of the patient in each block and these varied throughout the year.
- The order of SAND sections was rotated in the GP recording pack, so that 40 patient risk factor forms may appear first, second or third in the pack. Rotation of ordering ensures there was no order effect on the quality of the information collected.

Abstracts of results and the research tools used in all SAND substudies from April 1998 to March 2016 have been published. Those:

- from April 1998 to March 1999 were published in *Measures of health and health care delivery in general practice in Australia*¹⁰
- from April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*¹¹
- conducted between August 2006 and March 2015 have been published in each of the general practice activity annual reports^{12–20}
- conducted in the 2015–16 BEACH year are provided in Chapter 15 of the companion report, *General practice activity in Australia 2015–16*.¹

Abstracts of results for all SAND substudies are also available on the FMRC's website <sydney.edu.au/medicine/fmrc/publications/sand-abstracts>.

2.7 Statistical methods

The analysis of the 2015–16 BEACH data was conducted with Statistical Analysis System (SAS) version 9.3.²¹

BEACH has a single stage cluster sample study design, each 100 encounters forming a cluster around each GP participant. In cluster samples, variance needs to be adjusted to account for correlation between observations within clusters. Procedures in SAS version 9.3 were used to calculate the intraclass correlation, and adjust the confidence intervals accordingly.²¹

Post-stratification weighting of encounter data adjusts for: any difference in the age–sex distribution of the participating GPs and those in the sample frame from which the samples were drawn; and for the varying activity level of each GP (measured by number of claims each has made in the previous 12 months from Medicare Australia). Each year, the age–sex distribution of patients at the sampled encounters has excellent precision when compared with the age–sex distribution of patients at all Medicare-claimed services of this type.

The encounter is the primary unit of inference. Proportions are used only when describing the distribution of an event that can arise only once at a consultation (for example, patient or GP age and sex), or to describe the distribution of events within a class of events (for example, problem A as a percentage of total problems). Due to rounding, proportions may not always add to exactly 100%.

Rates per 100 encounters are used when an event can occur more than once at the consultation (for example, RFEs, problems managed or medications). Rates per 100 problems are also used when a management event can occur more than once per problem managed.

Statistical significance is tested by chi-square statistic for GP characteristics, but significance of differences in/for rates is judged by non-overlapping confidence intervals of the results being compared. The magnitude of this difference can be described as at least $p < 0.05$. Assessment using non-overlapping confidence intervals (CIs) is a conservative measure of significance,²²⁻²⁴ particularly when differences are assessed by comparing results from independent random samples, as is the case when changes over time are investigated using BEACH data. Due to the number of comparisons made in this and the companion publication, we believe this more conservative approach is warranted.

- Changes over time in the frequency of events are judged significant (that is, a real change has occurred) if the two sets of CIs do not overlap. For example, Result A: 11.5 per 100 encounters (95% CI: 11.3–11.7) is significantly less than Result B: 11.9 per 100 encounters (95% CI: 11.8–12.0).
- If the two sets of CIs butt together, the difference is regarded as marginal. For example, Result A: 11.5 per 100 encounters (95% CI: 11.3–11.7) is marginally lower than Result B: 11.9 (95% CI: 11.7–12.1).
- If the two sets of 95% confidence intervals overlap, then no change was measured.
- Differences discussed in this report are statistically significant unless otherwise stated.

2.8 Changes over time

For each of the 10 years from 2006–07 to 2015–16, patient RFEs and problems managed are reported as rates per 100 encounters. In earlier years, rates per 100 encounters were used when measuring changes in each of the management actions (prescriptions, other treatments, referrals, pathology and imaging). However, there has been a significant increase in the number of problems managed per encounter (see Chapter 7). This means that at each encounter, there is an increased chance of a management action occurring, without any change in the management practise of GPs. All management actions are therefore reported in two ways — as rates per 100 problems managed (used as the primary measure of change in GP behaviour) and as rates per 100 encounters (used as the basis of extrapolation).

Data presented in this report are comparable for each result across all data years wherever possible. However, as in any long-term research program, changes occur over the years. Where methodological changes have occurred, the data have either:

- been recalculated across all years using the new method (for example, body mass index was recalculated due to a change in the World Health Organization's [WHO] body mass index groupings)
- been regrouped for comparability. Where this occurs, it is noted in the footnotes of the table. An example is the combined presentation of home visits and institutional visits in Chapter 5 because the MBS now has only one item number for both. In previously published data it was possible to differentiate the two
- been omitted from this report (if recalculation or grouping was not possible). Where data are omitted, this is noted as not applicable (N/A) or not available (NAv), as appropriate.

Each table includes the most frequent events occurring in 2015–16, and the comparative results for each of the earlier years. In addition, each table includes data for events that were more frequent in past year(s), but were no longer the most frequent in 2015–16. In general, results are presented in decreasing 2015–16 order of frequency.

The direction and type of change between 2006–07 and 2015–16 is indicated for each result in the far right column of the tables:

- \uparrow/\downarrow indicates a statistically significant change (increase or decrease) in 2015–16 when compared with the first year of data reported
- \uparrow/\downarrow indicates a marginally significant change in 2015–16 when compared with the first year of data reported
- — indicates there was no significant change in 2015–16 when compared with the first year of data reported
- § indicates a noteworthy change during the decade.

2.9 Extrapolated national estimates

Extrapolations can be used to estimate the number of occurrences of a selected event at GP–patient encounters in Australia at a single time point, or to estimate the total national effect of a measured change.

Where the results demonstrate a significant change over time, the estimated national change across total GP Medicare services from 2006–07 to 2015–16 can be calculated using the method detailed below. Note that extrapolations are always based on rate per 100 encounters rather than rate per 100 problems, because there is no independent measure of the number of problems managed in Australian general practice. In contrast, the number of national encounters can be drawn from Medicare claims data.

Examples of extrapolated national change are given in each chapter in the report from Chapter 5 to Chapter 12 inclusive.

When extrapolating measured change over the decade to national estimates, we:

- divide the ‘rate per 100 encounters’ of the selected event for 2006–07 by 100, and then multiply by the total number of general practitioner service items claimed through Medicare in 2006–07 (rounded to the nearest 100,000). As shown in Table 2.1, this was 103.4 million. This provides the estimated national number of events in 2006–07
- repeat the process using data from 2015–16.

The difference between the two estimates gives the estimated national change in the frequency of that event between 2006–07 and 2015–16. Estimated national number of events is rounded to the nearest 100,000 if more than one million, and to the nearest 10,000 if below one million. It is possible to use this method to calculate the national effect of any significant change in a single result over any two time points.

- Change is expressed as the estimated increase or decrease over the study period in the number of general practice contacts for that event (for example, an increase or decrease in the number of GP management contacts with problem X); or an increase or decrease in the number of times a particular management action (for example, a selected medication type) was prescribed in Australia in 2015–16, when compared with (usually) 2006–07.

Extrapolations can also be made using data from a single time point to estimate the number of occasions that an event occurs in general practice encounters nationally in a specific year. When extrapolating from a single time point we:

- divide the 'rate per 100 encounters' of the selected event by 100, and multiply by the total number of general practitioner consultations claimed through Medicare that year (rounded to the nearest 100,000) to give the estimated national number of events in that year.

Table 2.1 provides the total (rounded) number of general practice professional service items claimed from Medicare in each financial year from 2006–07 to 2015–16.

Table 2.1: Rounded number of general practice professional services claimed from Medicare Australia each financial year, 2006–07 to 2015–16 (millions)

	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16 ^(a)
Rounded number of Medicare GP items of service claimed	103.4	109.5	113.0	116.6	119.2	123.9	128.7	134.2	139.4	143.0

(a) Medicare data for the 2015–16 year included data from the April 2015 to March 2016 quarters because the 2015–16 financial year data were not available at the time of preparation of this report.

Source: Medicare Statistics.^{6,9}

Examples of extrapolation

Example 1: Change in the number of clinical treatments performed nationally (with 95% confidence intervals)

GPs' use of clinical treatments (such as counselling and advice) increased by 30%, from 29.6 tests/batteries (95% CI: 27.7–31.5) per 100 encounters in 2006–07 to 38.6 (95% CI: 36.1–41.0) in 2015–16.

The calculation used to extrapolate the effect of this change across Australia is:

- In 2006–07 $(29.6/100) \times 103.4$ million = 30.6 million clinical treatments performed nationally
 Lower confidence interval: $27.7/100 \times 103.4$ million = possibly as few as 28.6 million
 Upper confidence interval: $31.5/100 \times 103.4$ million = possibly as many as 32.6 million
- In 2015–16, $(38.6/100) \times 143.0$ million = 55.2 million clinical treatments performed
 Lower confidence interval: $36.1/100 \times 143.0$ million = possibly as few as 51.6 million
 Upper confidence interval: $41.0/100 \times 143.0$ million = possibly as many as 58.6 million.

This suggests there were 24.6 million (55.2 million minus 30.6 million) more GP performed clinical treatments in Australia in 2015–16 than in 2006–07.

This is the result of both the increase in the clinical treatments performed by GPs at encounters **and** the increased number of GP visits over the decade across Australia.

Example 2: National change in the number of GP–patient encounters at which diabetes was managed (with 95% confidence intervals)

The management rate of diabetes did not change between 2006–07 (3.6 per 100 encounters, 95% CI: 3.4–3.9) and 2015–16 (4.0 per 100, 95% CI: 3.8–4.3).

For 2006–07, our best estimate for the total national encounters involving management of diabetes is:

3.7 million [(3.6/100) x 103.4 million], but we are 95% confident that the true number lies between 3.5 million [(3.4/100) x 103.4 million] and 4.0 million [(3.9/100) x 103.4 million].

For 2015–16, our best estimate for the total national encounters involving management of diabetes is:

5.7 million [(4.0/100) x 143.0 million], but we are 95% confident that the true number lies between 5.4 million [(3.8/100) x 143.0 million] and 6.1 million [(4.3/100) x 143.0 million].

Therefore, we estimate that even though the management rate of diabetes in an average 100 encounters did not change, the huge increase in the number of attendances nationally in 2015–16 (compared with 2006–07) led to an estimated additional 2.0 million GP–patient encounters across the country at which GPs managed diabetes, compared with a decade earlier.

Considerations and limitations in extrapolations

The extrapolations to the total number of events occurring nationally in any one year are only estimates. They may provide:

- an underestimate of the true ‘GP workload’ of a condition/treatment because the extrapolations are made to Medicare-claimed GP consultations, not to the total number of GP–patient encounters per year – an additional 5% of BEACH encounters annually include encounters paid by sources other than Medicare, such as DVA, state governments, workers compensation insurance, and employers
- an underestimate of activities of relatively low frequency with a skewed distribution across individual GPs.

Further, the base numbers used in the extrapolations are rounded to the nearest 100,000, and extrapolation estimates are rounded to the nearest 100,000 if more than one million, and to the nearest 10,000 if below one million. However, the rounding has been applied to all years, so the effect on measures of change will be very small. Therefore, the extrapolation still provides an indication of the size of the effect of measured change nationally.

Extrapolations are based on the unit of the encounter because the number of national encounters is quantifiable using Medicare claims data. However, the reader should be aware that where an event can occur more than once per encounter (for example, GPs can record up to two referrals per encounter), the extrapolation represents the number of occurrences of that event nationally (for example, the number of referrals nationally), rather than the number of encounters nationally where at least one event (for example, a referral) occurred.

2.10 Classification of data

The following data elements are classified according to the International Classification of Primary Care – Version 2 (ICPC-2), of the World Organization of Family Doctors (Wonca):²⁵

- patient reasons for encounter (RFEs)
- problems managed
- clinical treatments (for example, counselling, advice)
- procedural treatments
- referrals
- investigations ordered (including pathology, imaging and other investigations).

The ICPC-2 is used in more than 45 countries as the standard for data classification in primary care. It is accepted by the WHO in the WHO Family of International Classifications,²⁶ and is the declared national standard in Australia for reporting of health data from general practice and patient self-reported health information.²⁷

The ICPC-2 has a biaxial structure, with 17 chapters on one axis (each with an alphabetic code) and seven components on the other (numeric codes) (Figure 2.2). Chapters are based on body systems, with additional chapters for psychological and social problems. Component 1 includes symptoms and complaints. Component 7 covers diagnoses – it can also be expanded to provide data about infections, injuries, neoplasms, congenital anomalies and ‘other’ diagnoses.

Component 2 (diagnostic, screening and prevention) is often applied in describing the problem managed (for example, check-up, immunisation). Components 3 to 6 cover other processes of care, including referrals, other (non-pharmacological) treatments and orders for pathology and imaging. The components are standard and independent throughout all chapters. The updated component groupings of ICPC-2 codes, released by the Wonca International Classification Committee in 2004²⁸ have been used in this report.

The ICPC-2 is an excellent epidemiological tool. The diagnostic and symptom rubrics have been selected for inclusion on the basis of their relative frequency in primary care settings, or because of their relative importance in describing the health of the community. ICPC has about 1,370 rubrics and these are sufficient for meaningful analyses. However, reliability of data entry, using ICPC-2 alone, requires a thorough knowledge of the classification for correct classification of a concept to be ensured.

In 1995, recognising a need for a coding and classification system for general practice electronic health records, the FMRC (then the Family Medicine Research Unit, FMRU) developed an extended clinical terminology classified according to the ICPC, now called ICPC-2 PLUS.²⁹ This is an interface terminology, developed from all the terms used by GPs in studies such as *The Australian Morbidity and Treatment Survey 1990–91* (113,468 encounters),³⁰ *A comparison of country and metropolitan general practice 1990–91* (51,277 encounters),³¹ *The Morbidity and Therapeutic Index 1992–1998* (a clinical audit tool that was available to GPs; approximately 400,000 encounters), and *BEACH 1998–2016* (about 1.8 million encounters). Together, these make up about 2.4 million encounter records, involving about 3.5 million free text descriptions of problems managed and a further 3.5 million descriptions of patient reasons for encounter. These terms are classified according to ICPC-2 to ensure data can be compared internationally. Readers interested in seeing how coding works can download the ICPC-2 PLUS Demonstrator at <sydney.edu.au/health-sciences/ncch/icpc-2-plus/demonstrator.shtml>.

When the free-text data are received from the GPs, trained secondary coders (who are undergraduate students), code the data in specific terms using ICPC-2 PLUS. This ensures high coder reliability and automatic classification of the concept, and allows us to ‘ungroup’ such ICPC-2 rubrics as ‘other diseases of the circulatory system’ and select a specific disease from the terms within it.

Components	A	B	D	F	H	K	L	N	P	R	S	T	U	W	X	Y	Z
1. Symptoms, complaints																	
2. Diagnostic, screening, prevention																	
3. Treatment, procedures, medication																	
4. Test results																	
5. Administrative																	
6. Other																	
7. Diagnoses, disease																	

A	General and unspecified	L	Musculoskeletal	U	Urinary
B	Blood & blood-forming organs	N	Neurological	W	Pregnancy, family planning
D	Digestive	P	Psychological	X	Female genital
F	Eye	R	Respiratory	Y	Male genital
H	Ear	S	Skin	Z	Social
K	Circulatory	T	Endocrine, nutritional & metabolic		

Figure 2.2: The structure of the International Classification of Primary Care – Version 2 (ICPC-2)

Presentation of data classified in ICPC-2

Statistical reporting is usually at the level of the ICPC-2 classification (for example, acute otitis media/myringitis is ICPC-2 code H71). However, there are some exceptions where data are grouped either above the ICPC-2 level or across the ICPC-2 level. These grouped morbidity, pathology and imaging codes are defined in Appendix 4 available at: <hdl.handle.net/2123/15482>.

Reporting morbidity with groups of ICPC-2 codes

When recording problems managed, GPs may not always be very specific. For example, in recording the management of hypertension, they may simply record the problem as ‘hypertension’. In ICPC-2, ‘unspecified hypertension’ is classified as ‘uncomplicated hypertension’ (code K86). There is another code for ‘complicated hypertension’ (K87). In some cases, the GP may simply have failed to specify that the patient had hypertension with complications. The research team therefore feels that for national data reporting, it is more reliable to group the codes K86 and K87 and label this ‘Hypertension*’ – the asterisk indicating that multiple ICPC-2 codes (as in this example), or ICPC-2 PLUS codes (see below), are included. Appendix 4, Table A4.1 lists the codes included in these groups.

Reporting morbidity with groups of ICPC-2 PLUS codes

In other cases, a concept can be classified within (but be only part of) multiple ICPC-2 codes. For example, osteoarthritis is classified in ICPC-2 in multiple broader codes according to site, such as L92 – shoulder syndrome (includes bursitis, frozen shoulder, osteoarthritis of shoulder, rotator cuff syndrome). When reporting osteoarthritis in this publication, all the more specific osteoarthritis ICPC-2 PLUS terms classified within all the appropriate ICPC-2 codes are grouped. This group is labelled ‘Osteoarthritis*’ – the asterisk again indicating multiple codes, but in this case they are PLUS codes rather than ICPC-2 codes. Appendix 4, Table A4.1 lists the codes included in these groups.

Reporting chronic morbidity

Chronic conditions are medical conditions characterised by a combination of the following characteristics: duration that has lasted or is expected to last 6 months or more, a pattern of recurrence or deterioration, a poor prognosis, and consequences or sequelae that affect an individual's quality of life.

To identify chronic conditions, a chronic condition list³² classified according to ICPC-2 was applied to the BEACH data set. Chronic and non-chronic conditions (for example, diabetes and gestational diabetes) are often grouped together when reporting (for example, diabetes – all*). When reporting chronic morbidity, only problems regarded as chronic have been included in the analysis. Where the group used for the chronic analysis differs from that used in other analyses in this report, they are marked with a double asterisk. Codes included in the chronic groups are listed in Appendix 4, Table A4.2.

Reporting pathology and imaging test orders

All the pathology and imaging tests are coded very specifically in ICPC-2 PLUS, but ICPC-2 classifies pathology and imaging tests very broadly (for example, a test of cardiac enzymes is classified in K34 – Blood test associated with the circulatory system; a computerised tomography (CT) scan of the lumbar spine is classified as L41 – Diagnostic radiology/imaging of the musculoskeletal system). In Australia, the MBS classifies pathology and imaging tests in groups that are relatively well recognised. The team therefore regrouped all pathology and imaging ICPC-2 PLUS codes into MBS standard groups. This allows comparison of data between data sources. For groups marked with an asterisk, inclusions are listed in Appendix 4, Tables A4.7 and A4.8.

Classification of pharmaceuticals

Pharmaceuticals that are prescribed, provided by the GP, or advised for over-the-counter purchase, are coded and classified according to an in-house classification, the Coding Atlas for Pharmaceutical Substances (CAPS).

This is a hierarchical structure that facilitates analysis of data at a variety of levels, such as medication class, medication group, generic name/composition, and brand name.

The generic name of a medication is its non-proprietary name, which describes the pharmaceutical substance(s) or active pharmaceutical ingredient(s).

When strength and regimen are combined with the CAPS code, we can derive the prescribed daily dose for any prescribed medication or group of medications.

CAPS is mapped to the Anatomical Therapeutic Chemical (ATC)³³ classification, which is the Australian standard for classifying medications at the generic level.²⁷ The ATC has a hierarchical structure with five levels. For example:

- Level 1: C – Cardiovascular system
- Level 2: C10 – Serum lipid reducing agents
- Level 3: C10A – Cholesterol and triglyceride reducers
- Level 4: C10AA – HMG CoA reductase inhibitors
- Level 5: C10AA01 – Simvastatin (the generic drug).

CAPS is now in the care of the National Centre for Classification in Health. Further information about CAPS is available from <sydney.edu.au/health-sciences/ncch/caps.shtml>.

Use of the pharmaceutical classifications in reporting

For pharmaceutical data, there is the choice of reporting in terms of the CAPS coding scheme or the ATC. They each have advantages in different circumstances.

In the CAPS system, a new drug enters at the product and generic level, and is immediately allocated a generic code. Therefore, the CAPS classification uses a bottom-up approach.

In the ATC, a new generic may initially enter the classification at any level (1 to 5), not always at the generic level. Reclassification to lower ATC levels may occur later. Therefore, the ATC uses a top-down approach.

When analysing medications across time, a generic medication that is initially classified to a higher ATC level will not be identifiable in that data period and may result in under-enumeration of that drug during earlier data collection periods.

There are some differences in the labels applied to generic medications in the two classifications. For example, the medication combination of paracetamol and codeine is labelled as 'Paracetamol/codeine' in CAPS and as 'Codeine combinations excluding psycholeptics' in the ATC.

2.11 Quality assurance

All morbidity and therapeutic data elements were secondarily coded by staff entering key words or word fragments, and selecting the required term or label from a pick list. This was then automatically coded and classified by the computer. To ensure reliability of data entry we used computer-aided error checks ('locks') at the data entry stage, and a physical check of samples of data entered versus those on the original recording form. Further logical data checks were conducted through SAS regularly.

2.12 Validity and reliability

A discussion of the reliability and validity of the BEACH program has been published elsewhere.³⁴ This section summarises some aspects of reliability and validity of active data collection from general practice that should be considered by the reader.

In the development of a database such as BEACH, data gathering moves through specific stages: GP sample selection, cluster sampling around each GP, GP data recording, secondary coding and data entry. At each stage the data can be invalidated by the application of inappropriate methods. The methods adopted to ensure maximum reliability of coding and data entry have been described above. The statistical techniques adopted to ensure valid analysis and reporting of recorded data are described in Section 2.7. Previous work has demonstrated the extent to which a random sample of GPs recording information about a cluster of patients represents all GPs and all patients attending GPs,³⁵ the degree to which GP-reported patient RFEs and problems managed accurately reflect those recalled by the patient,³⁶ and reliability of secondary coding of RFEs³⁷ and problems managed.³⁰ The validity of ICPC as a tool with which to classify the data has also been investigated in earlier work.³⁸

3 The samples

For annual response rates and measures of representativeness of individual annual GP samples, please see the annual report for each year in question (available at: <sydney.edu.au/medicine/fmrc/publications/books/GP-series>).

More detailed descriptive analyses of the final sample in 2015–16 can be found in Chapter 3 of *General practice activity in Australia 2015–16*.¹

Table 3.1 shows the number of encounter records contained in each year of the BEACH program since April 2006, and the size of the database for those 10 years for each variable (weighted), upon which all comparisons over time described in this report are based.

Table 3.1: Annual summary of data sets, 2006–07 to 2015–16 (final weighted data)

Variable	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	Total 10 years
General practitioners	930	953	1,011	988	958	984	978	959	995	965	9,721
Encounters	91,805	95,898	96,688	101,349	95,839	99,030	98,564	95,879	98,728	97,398	971,178
Reasons for encounter	138,434	146,696	151,282	157,071	149,005	153,218	152,278	148,880	151,636	149,084	1,497,584
Problems managed	136,333	145,078	149,462	155,373	146,141	152,286	152,517	151,675	153,133	150,279	1,492,277
Medications	93,193	98,439	102,737	108,001	100,817	106,007	101,065	98,394	101,776	99,398	1,009,827
Other treatments	41,011	49,130	49,048	53,243	50,235	53,395	53,163	54,104	50,204	54,744	508,277
Referrals & admissions	11,230	12,017	13,251	13,481	13,526	14,382	14,561	15,012	15,697	15,671	138,828
Pathology	38,963	41,375	44,066	45,594	43,313	46,544	46,398	47,035	46,435	46,315	446,038
Imaging	8,229	9,143	9,469	9,877	9,370	9,978	10,163	10,460	11,314	10,733	98,736

4 The participating GPs

4.1 Characteristics of the participating GPs

In BEACH, each GP participant completed a profile questionnaire about themselves and the major practice at which they work (see Appendix 2). Over the 10 years, the questions were altered occasionally to improve the quality and clarity of the data collected, or to investigate topics not previously surveyed as they became relevant. Therefore, for some characteristics we have data over the full 10-year period, and for others, over shorter periods.

In this chapter, statistical significance of change is tested with the χ^2 (chi-square) statistic, with a decision level of $\alpha < 0.05$. More detailed analyses of the participating GPs in 2015–16 can be found in Chapter 4 in *General practice activity in Australia 2015–16*.¹

Over the period 2006–07 to 2015–16, some trends emerged in the characteristics of GP BEACH participants (Table 4.1). The most noticeable changes are listed below and some are presented in Figure 4.1.

- The feminisation of the general practice workforce is reflected in the growing proportion of GP participants who are female. The proportion of female participants increased from 34.1% in 2006–07 to 44.9% in 2015–16. This change reflects change in the sex distribution of all recognised GPs claiming more than 375 general practice Medicare items of service in the previous quarter (35.3% in 2006–07¹² and 42.7% in 2015–16), as provided each year by DoH from Medicare claims data. In Table 4.1, there was a ‘spike’ in the proportion of female GPs among the participating sample in 2009–10. As previously reported, this was the result of female GPs being over-represented in the sample provided by the (then) Department of Health and Ageing (DoHA) when compared with the national sample frame (as may occasionally happen in the random sampling process).¹⁵
- From 2006–07 to 2015–16, there was a significant change in the age distribution of participants, with a decrease in the proportion aged 45–54 years (from 35.6% to 24.6%), and an increase in the proportion aged 55 years and over (from 35.0% to 45.3%). Again, these changes reflect the changes in the practising GP population (as defined for BEACH from Medicare claims data), in which the proportion aged 45–54 years decreased from 35.6%¹² to 24.6%, and the proportion aged 55 years and over increased from 31.5%¹² to 45.3%. In BEACH, the mean age of GP participants in 2006–07 was 50.7 years (median 50 years), while in 2015–16, it was 52.0 years (median 53 years).
- There was a significant increase in the proportion of GPs working 21–40 hours per week in direct patient care (from 47.9% in 2006–07 to 61.8% in 2015–16), and a significant decrease in the proportion working 41–60 hours (36.9% in 2006–07 to 25.8% in 2015–16), the dramatic change occurring in 2009–10 (from 40.2% in 2008–09 to 30.8% in 2009–10). The proportion working more than 60 hours per week in direct patient care also steadily decreased (from 2.9% to 2.0% over the decade). When the last two results are combined, there was a decrease from 39.5% of participants working more than 40 hours per week in direct patient care in 2006–07 to 27.8% working these hours in 2015–16. There was a significant decrease in the mean number of hours spent in direct patient care, from 38.4 hours in 2006–07 to 36.7 hours in 2015–16. This has implications for workforce planning.
- The proportion of GPs who had graduated from their primary medical degree in Australia significantly decreased, from 73.6% in 2006–07 to 60.8% in 2015–16.

- The proportion of GP participants holding Fellowship of the RACGP (FRACGP) significantly increased, from 46.3% in 2006–07 to 62.6% in 2015–16. Since 1995, FRACGP has been mandatory for new clinicians entering general practice, so this change would largely reflect the inclusion of new GPs into practice who hold FRACGP.
- The proportion of participating GPs currently in training programs increased in recent years, peaking in 2012–13 at 6.1%, but showing a significant increase over the decade from 2.9% in 2006–07 to 4.8% in 2015–16.

4.2 Characteristics of participants' major practice

From 2006–07 to 2015–16, some trends emerged in the characteristics of the GP participants' major practices (Table 4.2). The most noticeable changes over the 10 years are listed below.

- The proportion of participants in smaller practices of 2–4 GPs decreased significantly, from 35.7% in 2006–07 to 24.3% in 2015–16. The proportion working in practices of 10 or more individual GPs almost doubled (from 15.8% in 2006–07 to 28.9% in 2015–16). Data were not available for 2007–08 and 2008–09, as the question was altered to capture full-time equivalent GPs at the practice instead of number of individuals. However, from 2009–10 both data elements were captured.
- Changes noted in regard to after-hours care are described below (multiple responses were allowed for this question).
 - The proportion of GPs working in practices that provided their own after-hours services (with no reliance on other arrangements) did not change over the decade (22.9% in 2006–07 and 20.0% in 2015–16, results not tabled). The proportion in practices that provided all or some of their own after-hours care (for example, provide their own and in co-operation with other practices) decreased from 34.6% to 29.4% (Table 4.2).
 - The proportion providing after-hours services in cooperation with other practices (as their sole arrangement) decreased over the time period, from 11.3% in 2006–07 to 8.6% in 2015–16 (results not tabled), and decreased from 15.5% to 9.8% when this option was combined with others (for example, provided some of their own and some in co-operation with other practices; or co-operatively with other practices and also using a deputising service).
 - However, the proportion of GPs working in practices that solely used deputising services for the provision of their after-hours care significantly increased from 35.9% in 2006–07 to 48.7% in 2015–16 (results not tabled). The proportion using deputising services in combination with other arrangements increased from 48.1% to 56.8%.

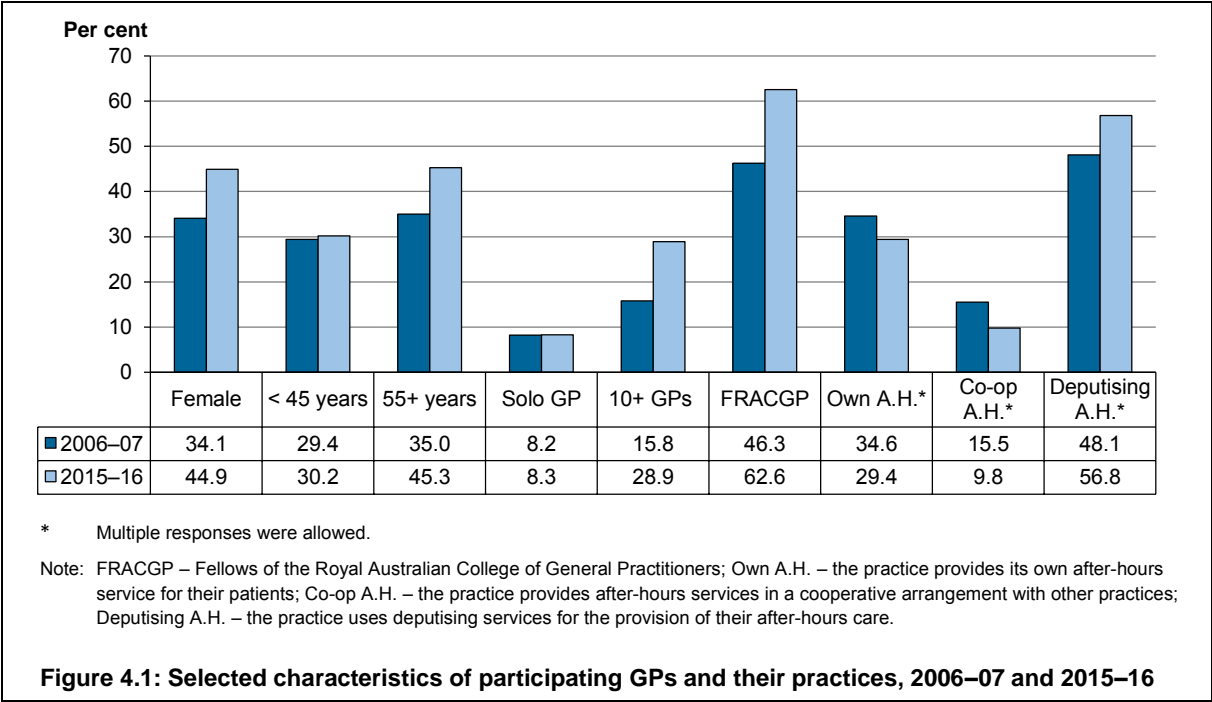


Table 4.1: Characteristics of participating GPs, 2006–07 to 2015–16

GP characteristic	Per cent of participating GPs ^(a)									
	2006–07 (n = 930)	2007–08 (n = 953)	2008–09 (n = 1,011)	2009–10 (n = 988)	2010–11 (n = 958)	2011–12 (n = 984)	2012–13 (n = 978)	2013–14 (n = 959)	2014–15 (n = 995)	2015–16 (n = 965) ^(b)
Sex										
($\chi^2_9 = 67.9, p < 0.0001$) (missing n)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Male	65.9	63.2	67.5	56.4	61.7	59.2	56.9	57.0	57.3	55.1
Female	34.1	36.8	32.5	43.6	38.3	40.8	43.1	43.0	42.7	44.9
Age										
($\chi^2_{27} = 177.5, p < 0.0001$) (missing n)	(11)	(8)	(4)	(6)	(6)	(5)	(8)	(5)	(7)	(4)
< 35 years	6.8	7.8	2.6	7.1	6.5	6.6	8.5	6.2	7.4	8.3
35–44 years	22.6	22.2	14.0	21.4	16.7	19.4	17.0	17.9	19.0	21.9
45–54 years	35.6	36.4	37.5	36.7	34.7	32.9	33.2	28.4	28.2	24.6
55+ years	35.0	33.5	45.9	34.8	42.1	41.1	41.3	47.5	45.3	45.3
Mean GP age (years)	50.7	50.0	53.7	50.5	52.4	51.9	51.5	53.0	52.4	52.0
(95% confidence interval)	(50.0–51.4)	(49.4–50.7)	(53.1–54.3)	(49.8–51.1)	(51.7–53.0)	(51.2–52.6)	(50.8–52.2)	(52.3–53.7)	(51.7–53.1)	(51.2–52.7)
Years in general practice										
($\chi^2_{36} = 226.6, p < 0.0001$) (missing n)	(13)	(7)	(6)	(7)	(8)	(5)	(11)	(10)	(13)	(8)
< 2 years	0.6	0.6	0.1	1.1	1.0	1.4	2.6	0.9	0.9	0.8
2–5 years	7.9	9.9	3.4	8.9	8.5	10.4	10.9	10.5	11.8	12.3
6–10 years	11.1	12.9	5.7	12.3	9.9	11.1	9.9	9.1	11.1	14.6
11–19 years	23.5	20.6	19.3	23.3	16.3	18.6	17.2	15.8	16.9	15.2
20+ years	57.0	55.9	71.5	54.3	64.3	58.4	59.5	63.7	59.3	57.1
Currently in a GP training program										
(missing n) ($\chi^2_9 = 39.1, p < 0.0001$)	(13)	(4)	(8)	(6)	(8)	(9)	(8)	(14)	(11)	(12)
	2.9	2.9	1.5	3.6	3.2	3.9	6.1	4.7	3.8	4.8

(continued)

Table 4.1 (continued): Characteristics of participating GPs, 2006–07 to 2015–16

GP characteristic	Per cent of participating GPs ^(a)										
	2006–07 (n = 930)	2007–08 (n = 953)	2008–09 (n = 1,011)	2009–10 (n = 988)	2010–11 (n = 958)	2011–12 (n = 984)	2012–13 (n = 978)	2013–14 (n = 959)	2014–15 (n = 995)	2015–16 (n = 965) ^(b)	
Fellow of RACGP (missing n) ($\chi^2_9 = 182.8, p < 0.0001$)	(6)	(5)	(7)	(4)	(4)	(3)	(6)	(7)	(6)	(8)	
	46.3	50.2	39.7	53.5	52.1	56.8	55.7	56.0	63.8	62.6	
Direct patient care hours per week ($\chi^2_{36} = 121.9, p < 0.0001$) (missing n)	(28)	(25)	(16)	(15)	(16)	(13)	(12)	(14)	(23)	(22)	
≤ 10	1.0	0.3	0.3	0.3	0.6	1.2	1.5	1.1	1.2	0.3	
11–20	11.3	8.7	7.3	10.3	8.7	12.2	10.1	10.2	10.7	10.1	
21–40	47.9	52.4	49.5	56.2	54.0	53.0	55.4	58.2	58.0	61.8	
41–60	36.9	36.6	40.2	30.8	34.2	32.1	31.2	29.0	28.4	25.8	
61+	2.9	1.9	2.7	2.4	2.4	1.4	1.9	1.6	1.7	2.0	
Mean direct patient care hours per week (95% confidence interval)	38.4 (37.6–39.3)	38.7 (37.9–39.5)	39.4 (38.7–40.1)	37.8 (37.0–38.6)	38.4 (37.6–39.2)	36.9 (36.1–37.7)	37.6 (36.7–38.4)	36.8 (36.0–37.6)	36.6 (35.8–37.4)	36.7 (35.9–37.4)	
Place of graduation ^(c) ($\chi^2_{54} = 125.2, p < 0.0001$) (missing n)	(1)	(3)	(2)	(1)	(3)	(1)	(3)	(4)	(5)	(4)	
Australia	73.6	73.5	74.3	70.6	69.2	67.2	66.2	71.0	67.0	60.8	
Overseas	26.4	26.5	25.7	29.4	30.8	32.8	33.8	29.0	33.0	39.2	
Asia	10.1	9.8	8.3	9.8	12.2	12.5	11.7	9.7	13.3	15.2	
United Kingdom/Ireland	7.3	6.8	10.3	8.8	7.4	8.1	9.2	8.5	8.4	9.8	
Africa and Middle East	5.1	4.3	3.8	5.2	5.8	5.6	6.4	5.0	6.0	6.9	
Europe	1.7	2.6	1.9	2.0	2.9	3.4	3.0	2.3	3.1	4.6	
New Zealand	1.4	1.4	1.1	1.9	1.4	1.6	2.2	1.9	1.3	1.5	
Other	0.8	1.6	0.3	1.6	1.2	1.5	1.4	1.6	0.9	1.4	

(continued)

Table 4.1 (continued): Characteristics of participating GPs, 2006–07 to 2015–16

GP characteristic	Per cent of participating GPs ^(a)										
	2006–07 (n = 930)	2007–08 (n = 953)	2008–09 (n = 1,011)	2009–10 (n = 988)	2010–11 (n = 958)	2011–12 (n = 984)	2012–13 (n = 978)	2013–14 (n = 959)	2014–15 (n = 995)	2015–16 (n = 965) ^(b)	
Consultations in languages other than English ^(c) ($\chi^2_{15} = 28.0, p = 0.02$) (missing n)	(0)	(4)	(3)	(3)	(5)	(3)	..	..	..	..
< 25%	18.1	20.4	17.6	18.5	21.9	21.7	NAV	NAV	NAV	NAV	
25–50%	1.6	3.1	3.5	3.6	2.9	2.9	NAV	NAV	NAV	NAV	
> 50%	2.9	3.6	3.0	1.8	1.9	2.8	NAV	NAV	NAV	NAV	

(a) Missing data removed. Number of missing data are presented in parentheses.

(b) Includes 44 GPs from the intended participant sample for 2016–17.

(c) For this variable $p < 0.0001$ – significant change when comparing Australia with all overseas countries combined; $p < 0.0001$ – significant change in the distribution of overseas countries in which GPs had graduated from their primary medical degree.

(d) Data for all three groupings were not available from 2012–13 to 2015–16.

Note: RACGP – Royal Australian College of General Practitioners; NAV – not available.

Table 4.2: Characteristics of practices in which participating GPs worked, 2006–07 to 2015–16

Practice characteristic	Per cent of participating GPs ^(a)										
	2006–07 (n = 930)	2007–08 (n = 953)	2008–09 (n = 1,011)	2009–10 (n = 988)	2010–11 (n = 958)	2011–12 (n = 984)	2012–13 (n = 978)	2013–14 (n = 959)	2014–15 (n = 995)	2015–16 (n = 965) ^(b)	
Practice location by ASGC ($\chi^2_{36} = 34.3, p = 0.5517$) (missing n)											
Major cities	(0)	(1)	(0)	(0)	(0)	(5)	(0)	(6)	(1)	(1)	
	66.3	72.2	73.4	69.2	69.2	71.5	68.8	68.9	71.2	68.6	
Inner regional	22.7	17.4	18.0	20.2	20.6	18.9	19.2	21.5	19.2	22.3	
Outer regional	9.4	8.6	7.2	9.1	8.8	8.1	10.5	8.4	8.3	7.5	
Remote	1.3	1.3	0.9	1.1	1.2	0.9	1.0	0.9	1.1	1.2	
Very remote	0.3	0.5	0.5	0.3	0.3	0.6	0.4	0.2	0.2	0.4	
Size of practice – number of GPs ($\chi^2_{21} = 135.9, p < 0.0001$) (missing n)											
(6)	..	..	..	(11)	(12)	(16)	(28)	(27)	(25)	(33)
Solo	8.2	NAV	NAV	9.2	10.8	10.7	9.8	8.7	9.6	8.3	
2–4	35.7	NAV	NAV	30.0	28.4	26.6	23.3	23.1	21.2	24.3	
5–9	40.3	NAV	NAV	41.4	38.6	42.3	38.6	42.6	40.1	38.6	
10+	15.8	NAV	NAV	19.5	22.2	20.5	28.3	25.6	29.1	28.9	
Size of practice – full-time equivalents ($\chi^2_{24} = 151.5, p < 0.0001$) (missing n)											
..	(23)	(8)	(51)	(40)	(111)	(128)	(136)	(150)	(143)		
< 2	NAV	17.6	19.6	15.2	17.2	13.8	11.9	10.4	11.1	10.3	
2 – < 5	NAV	41.2	42.9	48.9	43.6	43.6	39.0	41.5	37.0	39.9	
5 – < 10	NAV	31.9	29.4	28.8	29.6	34.7	38.2	37.4	40.8	35.8	
10+	NAV	9.3	8.1	7.2	9.6	7.9	10.9	10.7	11.0	14.0	

(continued)

Table 4.2 (continued): Characteristics of practices in which participating GPs worked, 2006–07 to 2015–16

Practice characteristic	Per cent of participating GPs ^(a)									
	2006–07 (n = 930)	2007–08 (n = 953)	2008–09 (n = 1,011)	2009–10 (n = 988)	2010–11 (n = 958)	2011–12 (n = 984)	2012–13 (n = 978)	2013–14 (n = 959)	2014–15 (n = 995)	2015–16 (n = 965) ^(b)
After-hours arrangements ^(c) (missing n)	(3)	(6)	(6)	(2)	(4)	(7)	(5)	(8)	(5)	(8)
Practice does its own ($\chi^2_9 = 13.7, p = 0.1343$)	34.6	33.2	28.9	29.1	29.8	30.6	30.7	30.7	31.6	29.4
Cooperative with other practices ($\chi^2_9 = 35.71, p < 0.0001$)	15.5	14.6	15.1	17.8	14.3	12.5	14.9	14.2	11.6	9.8
Deputising service ($\chi^2_9 = 37.29, p < 0.0001$)	48.1	49.5	57.9	53.1	52.1	53.0	53.3	56.4	56.9	56.8
Computer use by individual GPs ^(d) ($\chi^2_9 = 53.52, p < 0.0001$) (missing n)	(71)	(63)	(3)	(1)	(1)	(0)	(4)	(5)	(3)	(5)
Computer used (any purpose)	93.7	94.2	94.6	97.8	95.6	95.9	97.1	98.0	97.5	96.5
Medical records (missing n)	..	..	(3)	(1)	(1)	(0)	(4)	(5)	(3)	—
Complete (paperless) ^(e)	NAV	NAV	56.4	64.2	64.7	65.0	70.4	69.9	70.7	NAV
Partial/hybrid records	NAV	NAV	36.1	30.2	28.8	29.3	25.8	27.4	25.5	NAV
Paper records only	NAV	NAV	5.5	2.0	6.6	5.5	3.8	2.6	3.8	NAV
Prescribing										—
ePrescribing (online)	NAV	NAV	NAV	NAV	NAV	NAV	28.9	31.7	32.0	NAV
Print scripts	NAV	NAV	NAV	NAV	NAV	NAV	71.8	73.2	72.6	NAV
Paper only (handwritten)	NAV	NAV	NAV	NAV	NAV	NAV	4.3	3.7	2.0	NAV
Internet ($\chi^2_7 = 6.7334, p = 0.346$)	NAV	NAV	74.5	77.3	84.7	84.6	77.0	77.0	74.5	NAV
Email ($\chi^2_7 = 10.6766, p = 0.0988$)	NAV	NAV	61.1	61.1	65.0	66.6	60.8	61.0	56.1	NAV

(a) Missing data removed. Number of missing data are presented in parentheses.

(b) Includes 44 GPs from the intended participant sample for 2016–17.

(c) Multiple responses were allowed.

(d) Data refer to computer use by individual GPs, including non-clinical use.

(e) Includes data scanned and attached – not to be interpreted as total data contained in an extractable format.

Note: NAV – not available; ASGC – Australian Standard Geographical Classification.

5 The encounters

This chapter includes details about the GP encounters from each of the most recent 10 years of the BEACH study from 2006–07 to 2015–16. The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Significant changes in rates per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2006–07 and 2015–16. Some examples of extrapolated change are provided. The method used to extrapolate to national change estimates is described in Section 2.9. More detailed analyses of the GP–patient encounters in 2015–16 can be found in Chapter 5 of *General practice activity in Australia 2015–16*.¹

5.1 Content of the encounters

Table 5.1 provides an overview of the changes that occurred between 2006–07 and 2015–16. The number of patient reasons for encounter (RFEs) recorded by the GP fluctuated over the decade, starting from 150.8 RFEs per 100 encounters in 2006–07, rising to a peak of 156.5 in 2008–09 and then falling to 153.1 per 100 encounters in 2015–16. Changes in types of RFEs are reported in Chapter 6.

The number of problems managed increased from 148.5 per 100 encounters in 2006–07 to 154.3 per 100 encounters in 2015–16. This represents 67.1 million more problems managed in general practice in 2015–16 than a decade earlier. Further details about changes in the types of problems managed are presented in Chapter 7.

From 2014–15 onwards, data regarding the work-related nature of the problem under management was no longer collected and is therefore reported as not available in Table 5.1.

The changes in management actions described below are measured in terms of rates per 100 encounters. As there was a significant increase in the number of problems managed at encounters, it may be more informative to consider changes in GP management actions in terms of rates per 100 problems managed as described in Chapters 8 to 12, inclusive.

There was no change in the overall rate of medications recorded per 100 encounters although the rate of advised medications increased marginally. Specific changes in the types of medications recorded are detailed in Chapter 9.

Between 2006–07 and 2015–16, there was a significant increase of 30% in the rate of clinical treatments (such as advice and counselling) provided, from 29.6 per 100 encounters in 2006–07 to 38.6 per 100 in 2015–16. This represents an additional 24.6 million clinical treatments provided nationally in general practice in 2015–16 than a decade earlier. This pattern was reflected in the increase in the total other treatments (of which clinical treatments are the major component). These changes are described in further detail in Chapter 10.

There was a significant increase in the number of procedural treatments performed in general practice between 2006–07 and 2015–16, from 15.1 per 100 encounters to 17.6 per 100 encounters. This increase represents an additional 9.6 million procedures performed nationally in 2015–16 compared with a decade earlier. More detail is provided in Chapter 10.

Referrals increased over the decade 2006–07 to 2015–16 by about 30%, from 12.2 to 16.1 per 100 encounters. This represented 10.4 million more referrals nationally in 2015–16 than a decade earlier. The change was reflected in increased referrals to medical specialists and to allied health services and is described further in Chapter 11.

Orders for pathology and imaging tests also increased significantly between 2006–07 and 2015–16. Orders for other investigations decreased marginally over the period. These changes are reported in greater detail in Chapter 12.

5.2 Medicare/DVA-claimable encounters

Table 5.2 provides a summary of encounters recorded in BEACH as claimable through the Medicare Benefits Schedule/Department of Veterans' Affairs (MBS/DVA). These are expressed as a proportion of all MBS/DVA-claimable encounters.

Only one MBS/DVA-claimable item per encounter is counted in Table 5.2. The selection of one item number per encounter was based on priority, whereby consultation item numbers overrode Practice Incentives Program payment item numbers, which overrode procedural item numbers, which overrode other Medicare item numbers. Table 5.2 includes only items claimed by GPs (excluding items claimed for practice nurses etc.) and the major changes are summarised below.

- Short surgery consultations almost doubled, increasing significantly from 1.1% of MBS/DVA-claimable encounters in 2006–07 to 2.0% in 2015–16. Previous research suggests that part of this increase is related to increasing practice nurse involvement in GP encounters.³⁹
- Standard consultations decreased significantly from 83.3% of MBS/DVA-claimable encounters in 2006–07 to 77.2% in 2015–16.
- Long surgery consultations accounted for 10.0% of MBS/DVA-claimable encounters in 2006–07. The proportion dropped significantly in 2008–09, then slowly rose, and in 2015–16 was not significantly different to 10 years earlier.
- The proportion of encounters claimable under chronic disease management items, GP mental healthcare items and health assessments all significantly increased.

In May 2010, changes were made to the MBS that combined the existing Medicare items for home visits, consultations at hospitals and consultations at other institutions.⁴⁰ Unfortunately, this change prevented the discrete measurement of GP home visit frequency through MBS data. To allow the comparison of changes over time, we have applied this change to all previous years in the decade, and now report a single line for 'home and institution visits'. There was no change in the proportion of home and institution visits (together) between 2006–07 and 2015–16.

5.3 Consultation length

In a subsample of consultations, start and finish times were recorded. There was a marginal increase in the mean length of consultation from 14.0 minutes to 14.5 minutes between 2006–07 and 2015–16 for A1 MBS/DVA-claimable encounters. The mean length of consultation for all MBS/DVA-claimable encounters also increased significantly from 14.1 minutes to 14.9 minutes between 2006–07 and 2015–16. The median consultation length for both of these groups was consistently 12 minutes from 2006–07 to 2012–13. In 2013–14, it increased to 13 minutes, and then remained steady until 2015–16 (Table 5.3).

Table 5.1: Summary of morbidity and management, 2006–07 to 2015–16

Variable	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑↓ ^(e)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Reasons for encounter	150.8 (148.9–152.7)	153.0 (151.1–154.8)	156.5 (154.7–158.2)	155.0 (153.1–156.8)	155.5 (153.5–157.5)	154.7 (152.8–156.7)	154.5 (152.7–156.3)	155.3 (153.3–157.3)	153.6 (151.8–155.4)	153.1 (151.2–155)	—	
Problems managed	148.5 (146.4–150.6)	151.3 (149.2–153.4)	154.6 (152.6–156.5)	153.3 (151.1–155.5)	152.5 (150.2–154.7)	153.8 (151.4–156.1)	154.7 (152.5–157.0)	158.2 (155.7–160.7)	155.1 (153.0–157.2)	154.3 (152.0–156.6)	↑	
New problems	56.5 (55.1–57.9)	57.7 (56.3–59.1)	57.4 (56.0–58.7)	59.1 (57.6–60.5)	57.8 (56.4–59.3)	58.6 (57.1–60.0)	57.3 (55.7–58.8)	58.5 (57.0–60.1)	59.2 (57.8–60.6)	60.1 (58.5–61.6)	↑	
Chronic problems	53.3 (51.6–55.0)	54.0 (52.1–55.9)	56.9 (55.1–58.6)	54.1 (52.2–56.1)	53.1 (51.2–54.9)	55.6 (53.5–57.6)	55.7 (53.7–57.8)	56.3 (54.4–58.3)	55.0 (53.0–57.0)	53.3 (51.4–55.3)	—	
Work-related	2.9 (2.6–3.1)	2.8 (2.6–3.0)	2.8 (2.6–3.0)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.6 (2.4–2.8)	2.4 (2.2–2.5)	2.4 (2.2–2.5)	NAV	NAV	..	
Medications	101.5 (99.2–103.9)	102.7 (100.3–105.0)	106.3 (104.0–108.5)	106.6 (103.6–109.5)	105.2 (102.8–107.6)	107.0 (104.1–110.0)	102.5 (100.2–104.9)	102.6 (100.1–105.2)	103.1 (100.6–105.6)	102.1 (99.6–104.5)	—	
Prescribed	83.3 (81.0–85.5)	82.4 (80.3–84.6)	86.4 (84.1–88.6)	83.4 (80.6–86.2)	85.1 (82.9–87.3)	86.8 (84.0–89.7)	83.3 (81.0–85.5)	83.5 (81.2–85.8)	85.5 (83.1–88.0)	82.0 (79.8–84.2)	—	
GP-supplied	8.9 (8.2–9.6)	10.1 (9.5–10.7)	11.0 (10.2–11.8)	13.6 (12.7–14.6)	10.3 (9.5–11.2)	9.7 (8.9–10.5)	9.9 (9.1–10.7)	10.2 (9.4–11.0)	8.0 (7.4–8.6)	9.1 (8.3–9.9)	—	
Advised OTC	9.4 (8.7–10.1)	10.1 (9.3–10.9)	8.9 (8.3–9.4)	9.5 (8.7–10.3)	9.8 (9.0–10.5)	10.5 (9.7–11.3)	9.4 (8.4–10.3)	8.9 (8.2–9.6)	9.5 (8.8–10.2)	10.9 (10.1–11.8)	↑	
Other treatments	44.7 (42.3–47.0)	51.2 (48.9–53.6)	50.7 (48.5–52.9)	52.5 (49.8–55.3)	52.4 (49.8–55.1)	53.9 (51.2–56.6)	53.9 (51.2–56.7)	56.4 (53.8–59.0)	50.9 (48.4–53.3)	56.2 (53.4–59.0)	↑	
Clinical	29.6 (27.7–31.5)	34.6 (32.6–36.6)	34.1 (32.1–36.0)	35.1 (32.6–37.5)	35.6 (33.3–38.0)	37.1 (34.7–39.4)	36.6 (34.3–39.0)	37.7 (35.4–40.0)	33.9 (31.8–36.0)	38.6 (36.1–41.0)	↑	
Procedural	15.1 (14.3–15.9)	16.6 (15.8–17.5)	16.7 (16.0–17.4)	17.5 (16.4–18.5)	16.8 (16.0–17.7)	16.8 (16.0–17.7)	17.3 (16.4–18.2)	18.7 (17.9–19.6)	17.0 (16.2–17.8)	17.6 (16.6–18.7)	↑	

(continued)

Table 5.1 (continued): Summary of morbidity and management, 2006–07 to 2015–16

Variable	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Referrals	12.2 (11.7–12.7)	12.5 (12.0–13.0)	13.7 (13.2–14.2)	13.3 (12.8–13.8)	14.1 (13.5–14.7)	14.5 (13.9–15.1)	14.8 (14.2–15.4)	15.7 (15.1–16.3)	15.9 (15.3–16.5)	16.1 (15.4–16.7)	16.1 (15.4–16.7)	↑	
Medical specialist	8.0 (7.7–8.4)	8.0 (7.6–8.3)	9.0 (8.7–9.3)	8.4 (8.1–8.8)	8.6 (8.2–9.0)	8.6 (8.2–8.9)	8.9 (8.5–9.3)	9.5 (9.1–9.9)	9.6 (9.2–10.0)	9.5 (9.1–9.9)	9.5 (9.1–9.9)	↑	
Allied health services	3.1 (2.9–3.3)	3.4 (3.2–3.7)	3.9 (3.6–4.1)	3.9 (3.7–4.2)	4.2 (3.9–4.5)	4.7 (4.4–5.0)	4.7 (4.4–5.0)	4.9 (4.6–5.2)	5.2 (4.9–5.5)	5.6 (5.2–6.0)	5.6 (5.2–6.0)	↑	
Hospital	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	—	
Emergency department	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↑	
Other referrals	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.3 (0.2–0.4)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	↓	
Pathology	42.4 (40.7–44.2)	43.1 (41.3–45.0)	45.6 (43.8–47.4)	45.0 (43.1–46.9)	45.2 (43.4–47.0)	47.0 (44.9–49.1)	47.1 (45.1–49.0)	49.1 (47.1–51.0)	47.0 (45.2–48.9)	47.6 (45.5–49.6)	47.6 (45.5–49.6)	↑	
Imaging	9.0 (8.6–9.3)	9.5 (9.2–9.9)	9.8 (9.4–10.2)	9.7 (9.3–10.1)	9.8 (9.4–10.2)	10.1 (9.6–10.5)	10.3 (9.9–10.8)	10.9 (10.5–11.4)	11.5 (11.0–11.9)	11.0 (10.6–11.5)	11.0 (10.6–11.5)	↑	
Other investigations	1.1 (0.9–1.2)	1.0 (0.8–1.1)	1.0 (0.9–1.1)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.9 (0.8–0.9)	0.9 (0.8–0.9)	↓	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; NAV – not available; OTC – over-the-counter.

Table 5.2: Distribution of MBS/DVA items (GP only) recorded as claimable, counting one item only per encounter, 2006–07 to 2015–16

MBS/DVA consultation category	Percentage distribution of MBS/DVA-claimable encounters (95% CI)											2015–16 ↑ ^(a) ↓
	2006–07 (n = 79,847)	2007–08 (n = 83,376)	2008–09 (n = 86,069)	2009–10 (n = 89,113)	2010–11 (n = 83,903)	2011–12 (n = 87,243)	2012–13 (n = 85,881)	2013–14 (n = 84,142)	2014–15 (n = 86,198)	2015–16 (n = 84,313)		
Short surgery consultations	1.1 (0.9–1.4)	1.2 (1.0–1.4)	1.6 (1.4–1.8)	2.2 (1.9–2.5)	2.3 (2.0–2.6)	1.9 (1.5–2.2)	1.7 (1.5–2.0)	2.0 (1.7–2.3)	1.7 (1.5–1.9)	2.0 (1.7–2.3)	2.0 (1.7–2.3)	↑
Standard surgery consultations	83.3 (82.4–84.3)	82.1 (81.0–83.3)	83.9 (83.0–84.8)	82.0 (80.9–83.2)	82.6 (81.6–83.6)	81.8 (80.7–83.0)	80.6 (79.6–81.7)	78.8 (77.6–80)	78.8 (77.7–79.9)	77.2 (76.1–78.4)	77.2 (76.1–78.4)	↓
Long surgery consultations	10.0 (9.3–10.6)	9.9 (9.2–10.5)	7.7 (7.1–8.2)	8.3 (7.7–8.9)	7.8 (7.2–8.4)	8.5 (7.9–9.1)	9.4 (8.8–10.0)	10.7 (10–11.4)	10.7 (10.0–11.4)	11.1 (10.4–11.8)	11.1 (10.4–11.8)	§
Prolonged surgery consultations	0.6 (0.5–0.7)	0.7 (0.5–0.8)	0.5 (0.3–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.7)	0.6 (0.5–0.7)	0.8 (0.6–1.1)	0.7 (0.5–0.9)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	—
Home and institution visits	1.2 (0.9–1.4)	1.1 (0.7–1.6)	1.1 (0.9–1.3)	1.0 (0.7–1.2)	1.2 (0.8–1.6)	0.7 (0.5–0.9)	1.0 (0.8–1.1)	0.9 (0.7–1.1)	1.0 (0.8–1.2)	0.9 (0.7–1.2)	0.9 (0.7–1.2)	—
Residential aged care facility	1.3 (1.0–1.6)	1.2 (0.9–1.5)	1.3 (1.0–1.5)	1.3 (0.9–1.6)	1.5 (1.2–1.9)	1.9 (1.2–2.5)	1.7 (1.3–2.2)	1.9 (1.3–2.4)	1.6 (1.1–2.1)	1.7 (1.2–2.2)	1.7 (1.2–2.2)	—
Chronic disease management	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.9 (0.8–1.1)	1.0 (0.8–1.1)	1.0 (0.9–1.2)	1.3 (1.1–1.5)	1.4 (1.3–1.6)	1.5 (1.3–1.7)	1.8 (1.5–2.1)	2.5 (2.2–2.8)	2.5 (2.2–2.8)	↑
GP mental health care	0.2 (0.2–0.3)	0.8 (0.7–0.9)	1.0 (0.9–1.1)	1.2 (1.1–1.4)	1.2 (1.1–1.4)	1.4 (1.2–1.6)	1.5 (1.3–1.5)	1.4 (1.3–1.6)	1.5 (1.4–1.7)	1.7 (1.6–1.9)	1.7 (1.6–1.9)	↑
Health assessment	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	↑
Incentive payments	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	↑
Other items	1.4 (1.1–1.6)	1.9 (1.5–2.4)	1.5 (1.2–1.9)	2.1 (1.2–2.9)	1.3 (1.1–1.5)	1.4 (1.0–1.8)	1.4 (1.1–1.7)	1.4 (1.1–1.8)	1.5 (1.2–1.8)	1.4 (1.1–1.7)	1.4 (1.1–1.7)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Note: Includes items that were recorded as claimable through the Medicare Benefits Schedule (MBS)/Department of Veterans' Affairs (DVA), counting one item per encounter (see Chapter 2). CI – confidence interval.

Table 5.3: Consultation length (minutes), 2006–07 to 2015–16

Variable	Consultation length (minutes)										↑ ^(a) ↓
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	
A1 MBS/DVA items (A, B, C, D)^(b)	(n = 33,760)	(n = 30,208)	(n = 31,794)	(n = 32,137)	(n = 30,037)	(n = 31,212)	(n = 32,460)	(n = 29,530)	(n = 31,026)	(n = 29,041)	
Mean	14.0 (13.7–14.2)	13.8 (13.5–14.0)	13.7 (13.4–13.9)	13.9 (13.6–14.1)	13.6 (13.3–13.8)	13.7 (13.5–14.0)	14.0 (13.7–14.3)	14.4 (14.1–14.7)	14.4 (14.1–14.6)	14.5 (14.2–14.8)	↑
Median	12.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	↑
Mode	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	—
Range	1–155	1–110	1–120	1–148	1–89	1–150	1–130	1–110	1–130	1–105	..
All MBS/DVA-claimable encounters (GP items)	(n = 35,026)	(n = 31,851)	(n = 33,423)	(n = 34,335)	(n = 32,210)	(n = 33,367)	(n = 34,982)	(n = 31,816)	(n = 33,392)	(n = 32,191)	
Mean	14.1 (13.9–14.4)	14.0 (13.7–14.2)	13.9 (13.6–14.1)	14.1 (13.9–14.4)	13.8 (13.6–14.1)	14.1 (13.8–14.3)	14.3 (14.1–14.6)	14.8 (14.5–15.1)	14.7 (14.4–15.0)	14.9 (14.6–15.2)	↑
Median	12.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	↑
Mode	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	—
Range	1–155	1–110	1–120	1–148	1–95	1–150	1–165	1–150	1–180	1–105	..

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; § indicates a noteworthy change during the decade; and . . indicates the cell was intentionally left blank.

(b) A1 Medicare items – Group A includes: 3, 4, 13, 19, 20; Group B includes: 23, 24, 25, 33, 35; Group C includes: 36, 37, 38, 40, 43; Group D includes: 44, 47, 48, 50, 51.
 Note: MBS/DVA – Medicare Benefits Schedule/Department of Veterans Affairs.

6 The patients

This chapter includes data about the patients who participated in the BEACH study, including their characteristics and their reasons for encounter (RFEs), from each of the most recent 10 years of the BEACH study. The direction and type of change from 2006–07 to 2015–16 is shown for each result in the column on the far right of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Detailed analyses of the patients at encounters in 2015–16 can be found in Chapter 6 of *General practice activity in Australia 2015–16*.¹

Significant changes in rates per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2006–07 and 2015–16. There were 39.6 million more encounters claimed through Medicare in 2015–16 than in 2006–07 (143.0 million versus 103.4 million). It should be noted that because of this increase, even a decrease in the rate of an event per 100 encounters can result in an increase in the estimated total number of events nationally. Examples of extrapolated change are provided. The method used to extrapolate to national change estimates is described in Section 2.9.

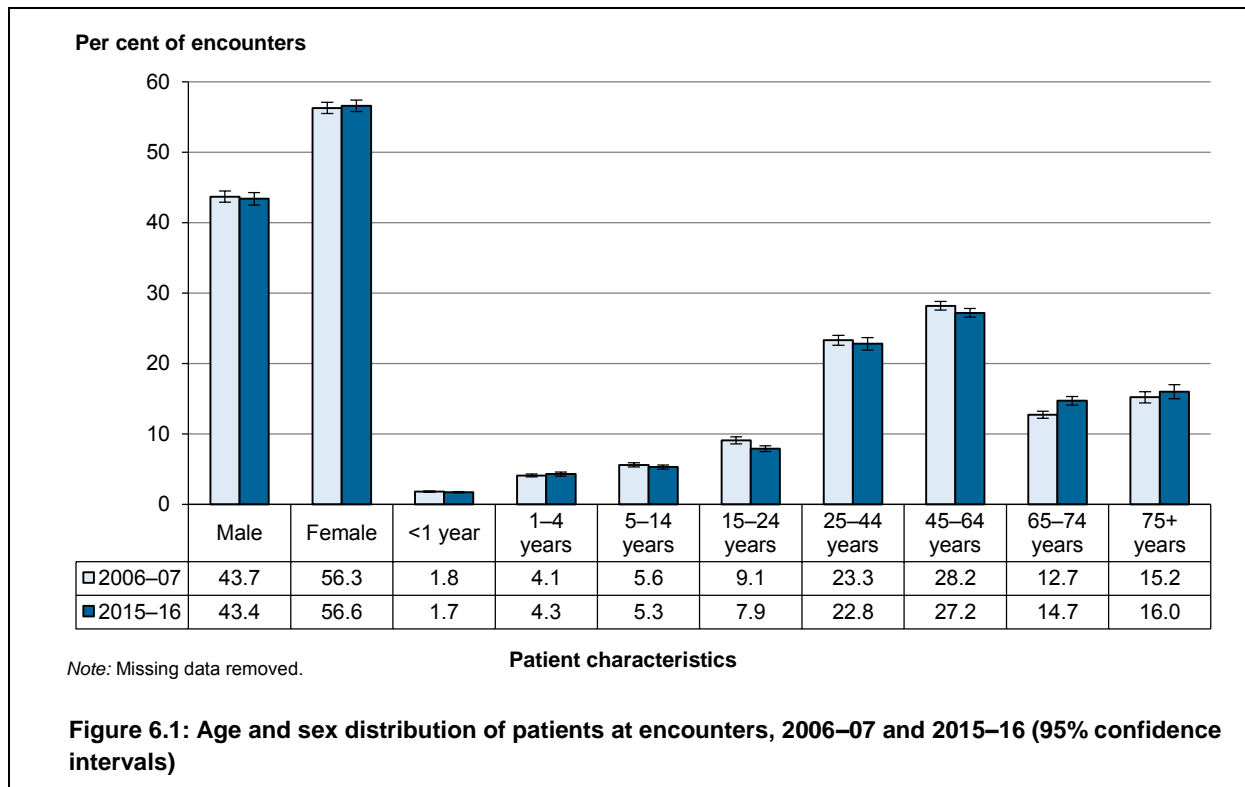
6.1 Age and sex of patients at encounter

Figure 6.1 and Table 6.1 show the age and sex distribution of patients at BEACH encounters from 2006–07 to 2015–16. Over this period, there was no significant change in the proportion of encounters with male or female patients. The proportion of encounters with patients aged 15–24 years decreased from 9.1% to 7.9%, while the proportion with patients aged 65–74 years increased from 12.7% to 14.7%. When extrapolated this suggests that nationally there were approximately 7.9 million more encounters with patients aged 65–74 years in 2015–16, than a decade earlier. This increase is likely to be due to the wave of baby boomers entering this age group over the decade, and the overall increase in average number of GP visits per head of population over this period.

Readers interested in changes in the care of middle aged people (aged 45–64 years) in general practice, should see the feature (Chapter 14) in the companion report *General practice activity in Australia 2015–16*.¹

6.2 Other patient characteristics

Over the decade, there was no significant change in the proportion of encounters that were with patients new to the practice. Between 2006–07 and 2015–16, the proportion of encounters with patients holding a Commonwealth concession card did not significantly change (45.4% to 46.2%) while those patients with a Repatriation Health Card nearly halved (3.4% to 1.8%). There was no significant change in the proportion of encounters that were with patients from a non-English-speaking background or with patients identifying themselves as Indigenous (Table 6.1).



6.3 Patient reasons for encounter

Patient RFEs reflect the patient’s demand for care and can provide an indication of service use patterns. Patient demand for care can be influenced by interventions aimed at the general population (for example, health awareness campaigns in popular media and print).

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. 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.

The patient may describe a single RFE that relates to a single problem managed at the encounter, a single RFE that relates to multiple problems, multiple RFEs that relate to a single problem managed at the encounter, or multiple RFEs that relate to multiple problems managed at the encounter. GPs may also manage a problem that was unrelated to the patient’s RFE (for example, a patient presents about their diabetes but while they are there, the GP also provides a vaccination and manages their hypertension).

Number of reasons for encounter

Table 6.2 shows that the proportion of encounters with two patient RFEs significantly increased from 27.9% in 2006-07 to 29.6% of all encounters in 2015-16. Extrapolation of this increase suggests there were about 13.5 million more encounters nationally where two RFEs were reported in 2015-16 than in 2006-07.

The overall rate of RFEs did not significantly change, with 150.8 reported per 100 encounters in 2006-07 and 153.1 reported per 100 encounters in 2015-16 (Table 6.3).

Reasons for encounter by ICPC-2 component

The distribution of patient RFEs by ICPC-2 component is presented in Table 6.3.

Symptoms and diagnoses

- RFEs expressed in terms of a symptom or complaint (for example, 'tired', 'feeling anxious') were the most frequent in all years and their presentation rate did not significantly change across the decade.
- With one exception, the rate of RFEs relating to specific diagnoses (including infections, injuries, neoplasms, congenital anomalies, and other diagnoses) did not significantly change across the decade. The exception was a significant decrease in the rate of RFEs related to infections, from 8.0 to 6.6 per 100 encounters.

Processes of care

RFEs relating to three of the five processes of care groups significantly increased across the decade.

- Patient requests for medications, treatments and therapeutics (such as repeat prescriptions) significantly increased from 14.2 to 16.1 per 100 encounters across the decade.
- Presentations for test results increased by nearly 50%, from 6.9 to 10.2 per 100 encounters. When extrapolated, we estimate 7.5 million more encounters nationally with an RFE of this type in 2015–16 than a decade earlier.
- The rate of requests for an administrative procedure (such as a sickness certificate) doubled from 1.9 to 3.8 per 100 encounters. This change equates to an estimated national increase of approximately 3.5 million more requests for an administrative procedure nationally in 2015–16 than in 2006–07.

Patient requests for 'diagnostic and preventive procedures' and 'referrals and other RFEs' did not significantly change across the decade.

Reasons for encounter by ICPC-2 chapter

- Table 6.4 shows that between 2006–07 and 2015–16, the rate at which patients described RFEs of a general and unspecified nature increased by over 20%. When extrapolated to national estimates, this equates to about 27.1 million more general and unspecified RFEs in 2015–16 than in 2006–07.
- RFEs related to psychological problems increased by about 20% over the decade. This equates to approximately 5.2 million more RFEs related to psychological problems nationally in 2015–16 than in 2006–07. The increased role of GPs in the management of mental health was the focus of Chapter 14 in the book *General practice activity in Australia, health priorities and policies 1998 to 2008*.⁴¹

Table 6.4 also shows that between 2006–07 and 2015–16, there were significant decreases in:

- the rate of RFEs relating to digestive problems, which decreased by about 8%
- the rate of RFEs relating to the circulatory system, which decreased by about 25%. This may be linked to the decrease in the management rate of hypertension (as discussed in Chapter 7)
- the rate of eye problem RFEs, which decreased by about 15% over the decade

The rate of RFEs relating to neurological problems decreased marginally between 2006–07 and 2015–16.

Proportion of encounters with at least one RFE by ICPC-2 chapter

Table 6.5 shows that between 2006–07 and 2015–16, there were significant increases in the proportion of encounters:

- where patients described at least one RFE of a general and unspecified nature (about 20% increase). When extrapolated to national estimates, this equates to about 22.7 million more encounters with at least one general and unspecified RFE in 2015–16 than in 2006–07
- with at least one RFE of a psychological nature (an increase of about 20%). This equates to approximately 4.6 million more encounters with at least one RFE of a psychological nature nationally in 2015–16 than in 2006–07.

Table 6.5 also shows that between 2006–07 and 2015–16, there were decreases in the proportion of encounters with at least one:

- circulatory-related RFE (a significant increase of about 25%)
- eye-related RFE (a significant increase of about 20%)
- digestive related RFEs (a marginal decrease)
- neurological RFE (a marginal decrease).

Most frequent patient reasons for encounter

The most frequent individual RFEs are shown in Table 6.6. As expected from results in Table 6.3, over the decade there were significant increases in RFEs related to specific processes of care:

- requests for prescriptions (an increase of about 15%)
- requests for test results (by nearly 50%)
- patient requests for administrative procedures (such as sickness certificates, wellness certificates and care plans) (which doubled)
- requests for other referrals (by over 50%).

There was, however, a significant decrease in the requests for check-ups (about a 15% decrease).

In terms of symptoms and diagnoses, from 2006–07 to 2015–16, there were significant increases in patient presentations of sneezing/nasal congestion (by over one-third) and anxiety (by 50%).

From 2006–07 to 2015–16, there was a marginal increase in patient presentations of skin symptoms or complaints (by about 15%).

From 2006–07 to 2015–16, there were significant decreases in the RFE rates for:

- throat complaints (about 20%)
- abdominal pain (about 15%)
- upper respiratory tract infection (30%)
- hypertension/high blood pressure (about 30%)
- leg/thigh complaint (20%)
- chest pain not otherwise specified (40%).

Over the same period, there were marginally significant decreases in the rates of observation/health education/advice/diet (nearly 20%), ear pain/earache (15%), diarrhoea (15%), and vomiting (20%).

Table 6.1: Characteristics of patients at encounters, 2006–07 to 2015–16

Patient characteristics	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑ ^(a) ↓
	2006–07 (n = 91,805) (765)	2007–08 (n = 95,898) (876)	2008–09 (n = 96,688) (867)	2009–10 (n = 101,349) (931)	2010–11 (n = 95,839) (888)	2011–12 (n = 99,030) (842)	2012–13 (n = 98,564) (823)	2013–14 (n = 95,879) (927)	2014–15 (n = 98,879) (880)	2015–16 (n = 97,398) (828)		
Sex (missing n) ^(b)												
Male	43.7 (42.9–44.5)	42.9 (42.1–43.7)	42.4 (41.5–43.3)	43.1 (42.3–43.9)	42.9 (42.0–43.7)	43.5 (42.7–44.3)	43.3 (42.5–44.1)	43.1 (42.2–44.0)	42.9 (42.0–43.7)	43.4 (42.5–44.2)	—	
Female	56.3 (55.5–57.1)	57.1 (56.3–57.9)	57.6 (56.7–58.5)	56.9 (56.1–57.7)	57.1 (56.3–58.0)	56.5 (55.7–57.3)	56.7 (55.9–57.5)	56.9 (56.0–57.8)	57.1 (56.3–58.0)	56.6 (55.8–57.5)	—	
Age group (missing n) ^(b)												
< 1 year	1.8 (1.7–2.0)	2.0 (1.8–2.1)	2.0 (1.8–2.1)	2.1 (1.9–2.3)	1.8 (1.7–2.0)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.9 (1.7–2.0)	1.9 (1.7–2.0)	1.7 (1.6–1.9)	—	
1–4 years	4.1 (3.9–4.4)	4.3 (4.1–4.6)	4.2 (4.0–4.4)	4.7 (4.5–5.0)	4.6 (4.3–4.9)	4.4 (4.2–4.7)	4.5 (4.2–4.8)	4.2 (3.9–4.5)	4.5 (4.2–4.7)	4.3 (4.0–4.6)	—	
5–14 years	5.6 (5.3–5.9)	5.5 (5.2–5.8)	5.3 (5.1–5.6)	5.7 (5.4–6.0)	5.5 (5.2–5.8)	5.3 (5.1–5.6)	5.2 (4.9–5.5)	5.1 (4.8–5.4)	5.2 (4.9–5.5)	5.3 (5.0–5.6)	—	
15–24 years	9.1 (8.6–9.5)	9.5 (9.0–9.9)	8.4 (8.0–8.9)	8.6 (8.2–9.0)	8.7 (8.3–9.1)	8.5 (8.1–8.9)	8.2 (7.7–8.6)	7.7 (7.3–8.1)	8.2 (7.8–8.6)	7.9 (7.5–8.3)	↘	
25–44 years	23.3 (22.6–24.0)	23.4 (22.7–24.1)	21.4 (20.7–22.1)	22.9 (22.1–23.6)	22.8 (22.0–23.5)	22.6 (21.7–23.4)	22.2 (21.4–23.1)	21.5 (20.7–22.3)	22.3 (21.4–23.1)	22.8 (21.9–23.7)	—	
45–64 years	28.2 (27.6–28.7)	28.1 (27.5–28.6)	29.1 (28.5–29.6)	28.2 (27.7–28.8)	27.7 (27.1–28.2)	27.7 (27.1–28.3)	27.6 (27.0–28.2)	27.1 (26.6–27.7)	27.3 (26.7–27.8)	27.2 (26.6–27.8)	—	
65–74 years	12.7 (12.2–13.2)	12.6 (12.1–13.1)	13.4 (12.9–13.9)	12.7 (12.2–13.2)	13.3 (12.7–13.8)	13.4 (12.8–13.9)	14.2 (13.6–14.7)	14.9 (14.4–15.5)	14.2 (13.7–14.8)	14.7 (14.1–15.3)	↑	
75+ years	15.2 (14.4–16.0)	14.7 (13.9–15.5)	16.2 (15.4–17.0)	15.1 (14.3–16.0)	15.7 (14.8–16.6)	16.3 (15.3–17.3)	16.3 (15.4–17.3)	17.6 (16.6–18.5)	16.5 (15.6–17.4)	16.0 (15.0–16.9)	—	

(continued)

Table 6.1 (continued): Characteristics of patients at encounters, 2006–07 to 2015–16

Patient characteristics	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)	
Other characteristics ^(b)												
New patient to practice	8.7 (7.9–9.4)	8.6 (7.8–9.4)	5.9 (5.5–6.3)	7.7 (7.1–8.3)	7.3 (6.6–7.9)	7.9 (7.0–8.8)	7.2 (6.6–7.9)	6.6 (6.0–7.1)	6.3 (5.8–6.9)	7.3 (6.5–8.0)	7.3 (6.5–8.0)	—
Commonwealth concession card	45.4 (43.8–46.9)	45.5 (44.0–47.1)	45.7 (44.3–47.0)	45.9 (44.3–47.4)	44.9 (43.3–46.4)	44.7 (43.1–46.2)	46.0 (44.4–47.6)	43.5 (41.9–45.1)	46.2 (44.6–47.9)	46.2 (44.4–47.9)	46.2 (44.4–47.9)	—
Repatriation Health Card	3.4 (3.2–3.7)	3.1 (2.8–3.3)	3.1 (2.9–3.4)	2.9 (2.7–3.2)	2.5 (2.3–2.7)	2.4 (2.2–2.7)	2.3 (2.1–2.5)	2.2 (2.0–2.4)	2.1 (2.0–2.3)	2.1 (1.7–2.0)	1.8 (1.7–2.0)	↓
Non-English-speaking background	8.0 (6.5–9.5)	11.0 (9.2–12.8)	10.4 (8.7–12.1)	9.0 (7.3–10.6)	10.7 (8.9–12.5)	11.3 (9.4–13.2)	12.0 (10.0–14.0)	10.0 (8.2–11.8)	10.2 (8.6–11.9)	10.5 (8.5–12.5)	10.5 (8.5–12.5)	—
Aboriginal person and/or Torres Strait Islander	1.0 (0.7–1.3)	1.0 (0.8–1.3)	0.9 (0.6–1.1)	1.3 (1.0–1.6)	1.2 (0.9–1.5)	1.6 (1.2–1.9)	1.5 (1.2–1.9)	1.7 (1.3–2.1)	1.7 (1.3–2.1)	1.5 (1.2–1.8)	1.5 (1.2–1.8)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Missing data removed.

Note: CI – confidence interval.

Table 6.2: Number of patient reasons for encounter, 2006–07 to 2015–16

Number of reasons for encounter	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)	
One RFE	60.6 (59.4–61.9)	58.9 (57.7–60.2)	56.6 (55.5–57.8)	57.7 (56.5–58.9)	57.6 (56.3–58.8)	57.9 (56.6–59.1)	58.0 (56.8–59.3)	57.7 (56.4–59.0)	58.5 (57.3–59.7)	58.7 (57.4–60.0)	58.7 (57.4–60.0)	—
Two RFES	27.9 (27.2–28.7)	29.1 (28.5–29.8)	30.3 (29.6–30.9)	29.7 (29.0–30.4)	29.4 (28.7–30.1)	29.6 (28.9–30.3)	29.4 (28.7–30.1)	29.4 (28.7–30.1)	29.4 (28.6–30.1)	29.6 (28.8–30.5)	29.6 (28.8–30.5)	↑
Three RFES	11.4 (10.7–12.2)	11.9 (11.2–12.6)	13.1 (12.4–13.8)	12.6 (11.9–13.4)	13.0 (12.3–13.8)	12.6 (11.8–13.3)	12.5 (11.9–13.2)	12.9 (12.1–13.7)	12.1 (11.4–12.8)	11.7 (11.1–12.4)	11.7 (11.1–12.4)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change; and — indicates no significant difference between 2006–07 and 2015–16.

Note: CI – confidence interval; RFE – reason for encounter.

Table 6.3: Patient reasons for encounter by ICP-2 component, 2006–07 to 2015–16

ICPC-2 component	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Symptoms and complaints	65.2 (63.4–67.1)	65.1 (63.2–67.0)	66.3 (64.6–68.0)	65.1 (63.1–67.0)	66.8 (64.7–68.9)	66.6 (64.7–68.5)	64.3 (62.4–66.2)	62.5 (60.6–64.4)	65.6 (63.7–67.4)	63.8 (61.8–65.8)	—	
Diagnosis, diseases	30.5 (28.9–32.2)	30.4 (28.9–31.9)	30.3 (28.8–31.8)	30.7 (29.1–32.3)	30.9 (29.4–32.3)	29.3 (27.8–30.8)	29.8 (28.3–31.4)	29.7 (28.1–31.2)	28.7 (27.3–30.0)	27.6 (26.2–29.1)	—	
Infections	8.0 (7.5–8.6)	7.9 (7.4–8.4)	7.9 (7.4–8.4)	7.9 (7.4–8.5)	7.7 (7.2–8.2)	7.3 (6.8–7.7)	7.6 (7.1–8.1)	6.8 (6.3–7.3)	7.0 (6.6–7.4)	6.6 (6.2–7.0)	↘	
Injuries	4.3 (4.1–4.5)	4.5 (4.3–4.7)	4.3 (4.1–4.5)	4.6 (4.4–4.9)	4.4 (4.2–4.6)	4.4 (4.2–4.6)	4.2 (4.0–4.4)	4.5 (4.3–4.8)	4.4 (4.1–4.6)	4.3 (4.1–4.5)	—	
Neoplasms	1.2 (1.0–1.3)	1.2 (1.0–1.3)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	—	
Congenital anomalies	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	—	
Other diagnoses, diseases	16.8 (15.6–18.0)	16.6 (15.4–17.7)	16.8 (15.7–18.0)	16.8 (15.6–17.9)	17.4 (16.4–18.5)	16.4 (15.3–17.5)	16.8 (15.7–17.9)	17.1 (15.9–18.2)	16.1 (15.1–17.1)	15.5 (14.4–16.6)	—	
Diagnostic and preventive procedures	24.8 (23.8–25.7)	25.6 (24.7–26.5)	26.9 (26.0–27.8)	27.0 (26.0–27.9)	25.1 (24.1–26.1)	24.6 (23.6–25.5)	24.6 (23.6–25.6)	26.4 (25.3–27.4)	23.0 (22.2–23.8)	24.0 (23.0–24.9)	—	
Medications, treatments and therapeutics	14.2 (13.5–14.8)	15.1 (14.3–15.8)	15.3 (14.6–15.9)	14.1 (13.4–14.8)	14.5 (13.8–15.2)	15.0 (14.2–15.8)	15.4 (14.7–16.2)	16.2 (15.5–17.0)	16.1 (15.3–16.9)	16.1 (15.4–16.8)	↗	
Test results	6.9 (6.5–7.3)	7.6 (7.2–8.1)	7.8 (7.4–8.2)	8.1 (7.7–8.6)	8.0 (7.5–8.5)	8.5 (8.1–9.0)	9.1 (8.6–9.5)	9.4 (8.9–9.9)	9.5 (9.0–9.9)	10.2 (9.7–10.7)	↗	
Referrals and other RFEs	7.3 (6.9–7.8)	6.8 (6.4–7.2)	7.5 (7.0–7.9)	7.6 (7.2–8.1)	7.5 (7.1–7.9)	7.7 (7.3–8.2)	8.1 (7.5–8.6)	7.9 (7.4–8.4)	7.5 (7.1–7.9)	7.6 (7.2–8.0)	—	
Administrative	1.9 (1.7–2.0)	2.4 (2.2–2.5)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	2.6 (2.4–2.8)	3.0 (2.7–3.2)	3.2 (3.0–3.4)	3.3 (3.1–3.5)	3.3 (3.1–3.5)	3.8 (3.5–4.1)	↗	
Total RFEs	150.8 (148.9–152.7)	153.0 (151.1–154.8)	156.5 (154.7–158.2)	155.0 (153.1–156.8)	155.5 (153.5–157.5)	154.7 (152.8–156.7)	154.5 (152.7–156.3)	155.3 (153.3–157.3)	153.6 (151.8–155.4)	153.1 (151.2–155.0)	—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result. ↗↘ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; ICP-2 – International Classification of Primary Care - Version 2; RFE – reason for encounter.

Table 6.4: Patient reasons for encounter by ICD-10 chapter, 2006–07 to 2015–16

ICD-10 chapter	Rate per 100 encounters (95% CI)											↑ ^(e) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
General & unspecified	37.8 (36.7–38.9)	40.1 (39.0–41.3)	40.7 (39.7–41.8)	42.8 (41.6–44.0)	41.1 (39.8–42.4)	42.3 (41.1–43.6)	44.6 (43.3–45.8)	45.3 (43.9–46.6)	45.0 (43.8–46.2)	46.3 (45.0–47.6)	↑	
Respiratory	20.7 (19.9–21.6)	20.6 (19.8–21.5)	22.0 (21.2–22.9)	22.8 (21.9–23.8)	21.7 (20.9–22.6)	21.3 (20.3–22.2)	20.8 (19.9–21.7)	19.1 (18.2–19.9)	19.3 (18.4–20.1)	20.2 (19.3–21.2)	–	
Musculoskeletal	16.1 (15.6–16.6)	15.4 (14.9–15.9)	16.1 (15.5–16.6)	15.4 (14.7–16.2)	15.3 (14.9–15.8)	15.8 (15.3–16.3)	15.8 (15.2–16.3)	15.6 (15.1–16.1)	15.9 (15.5–16.4)	15.3 (14.8–15.9)	–	
Skin	15.7 (15.1–16.3)	15.4 (14.7–16.0)	15.0 (14.6–15.5)	14.7 (14.2–15.3)	15.2 (14.8–15.7)	15.0 (14.4–15.5)	14.9 (14.3–15.5)	15.8 (15.1–16.4)	15.1 (14.6–15.6)	15.3 (14.7–15.9)	–	
Digestive	10.1 (9.7–10.5)	10.3 (10.0–10.7)	9.8 (9.4–10.1)	9.8 (9.5–10.1)	10.2 (9.8–10.6)	10.2 (9.9–10.6)	9.5 (9.1–9.9)	9.7 (9.4–10.1)	9.8 (9.5–10.2)	9.3 (8.9–9.6)	↓	
Psychological	7.4 (7.1–7.8)	7.8 (7.4–8.2)	8.6 (8.2–9.1)	8.4 (8.0–8.9)	9.0 (8.6–9.4)	8.9 (8.4–9.4)	9.3 (8.8–9.8)	9.3 (8.8–9.7)	9.5 (9.0–10.0)	9.0 (8.6–9.5)	↑	
Circulatory	11.2 (10.7–11.8)	11.2 (10.6–11.8)	11.5 (10.9–12.0)	10.0 (9.5–10.5)	10.5 (10.0–11.1)	10.2 (9.6–10.7)	9.1 (8.7–9.6)	10.0 (9.4–10.6)	8.8 (8.3–9.2)	8.2 (7.7–8.6)	↓	
Endocrine & metabolic	6.4 (6.1–6.8)	6.5 (6.1–6.8)	6.9 (6.5–7.3)	6.1 (5.8–6.4)	6.6 (6.2–6.9)	6.3 (5.9–6.6)	6.2 (5.9–6.6)	6.3 (5.9–6.7)	5.8 (5.5–6.1)	5.9 (5.5–6.3)	–	
Female genital system	5.1 (4.7–5.4)	5.2 (4.8–5.6)	5.3 (4.9–5.6)	4.7 (4.4–5.1)	5.0 (4.6–5.3)	4.8 (4.4–5.1)	4.4 (4.0–4.7)	4.7 (4.4–5.0)	4.6 (4.2–5.0)	4.6 (4.2–4.9)	–	
Neurological	4.9 (4.7–5.2)	4.8 (4.6–5.0)	4.8 (4.6–5.0)	4.4 (4.1–4.6)	4.6 (4.4–4.9)	4.5 (4.3–4.8)	4.4 (4.2–4.6)	4.3 (4.1–4.5)	4.5 (4.3–4.7)	4.4 (4.2–4.7)	↓	
Ear	3.5 (3.4–3.7)	3.6 (3.4–3.8)	3.7 (3.5–3.9)	3.6 (3.4–3.8)	3.7 (3.5–3.9)	3.4 (3.3–3.6)	3.6 (3.4–3.7)	3.4 (3.2–3.5)	3.4 (3.2–3.5)	3.3 (3.1–3.5)	–	
Pregnancy & family planning	3.3 (3.0–3.6)	3.2 (3.0–3.5)	3.1 (2.8–3.3)	3.4 (3.2–3.7)	3.4 (3.1–3.7)	3.3 (3.1–3.6)	3.3 (3.0–3.5)	3.0 (2.8–3.2)	3.5 (3.2–3.8)	3.0 (2.7–3.2)	–	
Urology	2.6 (2.4–2.7)	2.5 (2.4–2.7)	2.7 (2.5–2.8)	2.6 (2.5–2.8)	2.7 (2.6–2.9)	2.6 (2.4–2.7)	2.7 (2.6–2.9)	2.8 (2.6–2.9)	2.7 (2.5–2.8)	2.7 (2.5–2.8)	–	

(continued)

Table 6.4 (continued): Patient reasons for encounter by ICP-2 chapter, 2006–07 to 2015–16

ICPC-2 chapter	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑ ^(a) ↓	
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)			
Eye	2.5 (2.4–2.7)	2.5 (2.4–2.6)	2.6 (2.4–2.7)	2.3 (2.2–2.5)	2.4 (2.3–2.6)	2.3 (2.1–2.4)	2.0 (1.9–2.2)	2.0 (1.9–2.2)	2.1 (2.0–2.2)	2.1 (2.0–2.2)	2.1 (2.0–2.2)	2.1 (2.0–2.2)	↓
Blood & blood-forming organs	1.2 (1.1–1.4)	1.4 (1.2–1.5)	1.4 (1.3–1.6)	1.4 (1.2–1.5)	1.6 (1.4–1.8)	1.7 (1.5–1.8)	1.7 (1.5–1.9)	1.7 (1.6–1.9)	1.5 (1.3–1.7)	1.5 (1.3–1.7)	1.4 (1.2–1.5)	1.4 (1.2–1.5)	—
Male genital system	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.2 (1.1–1.4)	1.3 (1.2–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (1.0–1.3)	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	—
Social	0.9 (0.8–1.0)	1.1 (1.0–1.2)	0.9 (0.9–1.0)	1.2 (1.1–1.3)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	—
Total RFEs	150.8 (148.9–152.7)	153.0 (151.1–154.8)	156.5 (154.7–158.2)	155.0 (153.1–156.8)	155.5 (153.5–157.5)	154.7 (152.8–156.7)	154.5 (152.7–156.3)	155.3 (153.3–157.3)	153.6 (151.8–155.4)	153.1 (151.2–155.0)	153.1 (151.2–155.0)	153.1 (151.2–155.0)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; ICP-2 – International Classification of Primary Care - Version 2; RFE – reason for encounter.

Table 6.5: Proportion of encounters with at least one patient reason for encounter by ICDPC-2 chapter, 2006–07 to 2015–16

ICPC-2 chapter	Proportion (95% CI)											↑ ^(e) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
General & unspecified	33.9 (33.1–34.8)	35.7 (34.8–36.6)	35.9 (35.1–36.7)	37.5 (36.6–38.5)	36.0 (35.0–37.0)	37.1 (36.1–38.0)	38.9 (37.9–39.9)	39.3 (38.2–40.3)	39.1 (38.1–40.0)	40.4 (39.4–41.5)	↑	
Respiratory	17.6 (17.0–18.3)	17.5 (16.8–18.1)	18.8 (18.1–19.4)	19.2 (18.6–19.9)	18.2 (17.6–18.8)	17.8 (17.1–18.4)	17.6 (16.9–18.3)	16.5 (15.8–17.1)	16.2 (15.6–16.8)	17.1 (16.4–17.8)	—	
Skin	14.6 (14.1–15.2)	14.3 (13.7–14.8)	14.1 (13.7–14.5)	13.9 (13.4–14.4)	14.3 (13.8–14.7)	14.0 (13.6–14.5)	14.1 (13.5–14.6)	14.8 (14.2–15.4)	14.3 (13.8–14.8)	14.5 (14.0–15.0)	—	
Musculoskeletal	14.9 (14.4–15.3)	14.3 (13.9–14.8)	14.6 (14.2–15.0)	14.2 (13.5–14.9)	14.1 (13.7–14.5)	14.4 (14.0–14.9)	14.4 (14.0–14.9)	14.4 (14.0–14.9)	14.7 (14.3–15.1)	14.1 (13.7–14.6)	—	
Digestive	8.8 (8.5–9.1)	9.0 (8.7–9.3)	8.6 (8.3–8.9)	8.6 (8.3–8.8)	8.9 (8.7–9.2)	8.9 (8.6–9.2)	8.4 (8.1–8.7)	8.7 (8.4–8.9)	8.7 (8.4–9.0)	8.2 (7.9–8.5)	↓	
Psychological	6.8 (6.4–7.1)	7.1 (6.7–7.4)	7.8 (7.4–8.1)	7.6 (7.2–7.9)	8.1 (7.7–8.4)	7.9 (7.5–8.3)	8.3 (7.9–8.7)	8.4 (8.0–8.8)	8.4 (8.0–8.8)	8.1 (7.7–8.5)	↑	
Circulatory	10.7 (10.1–11.2)	10.7 (10.2–11.3)	10.9 (10.4–11.4)	9.5 (9.1–10.0)	10.0 (9.5–10.5)	9.6 (9.1–10.1)	8.7 (8.3–9.2)	9.6 (9.0–10.1)	8.4 (7.9–8.8)	7.9 (7.4–8.3)	↓	
Endocrine & metabolic	6.2 (5.8–6.5)	6.2 (5.9–6.5)	6.5 (6.2–6.9)	5.8 (5.5–6.1)	6.3 (6.0–6.6)	6.0 (5.6–6.3)	6.0 (5.7–6.3)	6.0 (5.7–6.4)	5.5 (5.2–5.8)	5.7 (5.3–6.0)	—	
Neurological	4.7 (4.5–4.9)	4.6 (4.4–4.8)	4.6 (4.4–4.8)	4.2 (4.0–4.4)	4.5 (4.3–4.7)	4.4 (4.2–4.5)	4.2 (4.0–4.4)	4.1 (3.9–4.3)	4.3 (4.1–4.5)	4.3 (4.1–4.5)	↓	
Female genital system	4.7 (4.3–5.0)	4.7 (4.4–5.1)	4.8 (4.5–5.1)	4.3 (4.0–4.6)	4.5 (4.2–4.8)	4.3 (4.0–4.6)	4.0 (3.7–4.3)	4.4 (4.1–4.7)	4.2 (3.9–4.5)	4.2 (3.9–4.5)	—	
Ear	3.4 (3.3–3.6)	3.5 (3.3–3.6)	3.6 (3.4–3.8)	3.4 (3.3–3.6)	3.6 (3.4–3.7)	3.3 (3.2–3.5)	3.4 (3.3–3.6)	3.2 (3.1–3.4)	3.3 (3.1–3.4)	3.2 (3.0–3.3)	—	
Pregnancy & family planning	3.2 (2.9–3.4)	3.1 (2.9–3.4)	3.0 (2.7–3.2)	3.3 (3.0–3.6)	3.3 (3.0–3.6)	3.2 (3.0–3.4)	3.2 (2.9–3.4)	2.9 (2.7–3.1)	3.4 (3.1–3.7)	2.9 (2.6–3.1)	—	
Urology	2.4 (2.2–2.5)	2.3 (2.2–2.4)	2.5 (2.3–2.6)	2.4 (2.3–2.5)	2.4 (2.3–2.5)	2.3 (2.2–2.5)	2.5 (2.4–2.6)	2.5 (2.4–2.7)	2.5 (2.4–2.6)	2.4 (2.3–2.5)	—	

(continued)

Table 6.5 (continued): Proportion of encounters with at least one patient reason for encounter by ICP-2 chapter, 2006–07 to 2015–16

ICPC-2 chapter	Proportion (95% CI)											2015–16 (n = 97,398)	↑(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Eye	2.4 (2.2–2.5)	2.4 (2.2–2.5)	2.4 (2.3–2.5)	2.2 (2.1–2.3)	2.2 (2.1–2.4)	2.1 (2.0–2.3)	1.9 (1.8–2.0)	1.9 (1.8–2.1)	2.0 (1.9–2.1)	1.9 (1.8–2.1)	1.9 (1.8–2.1)	1.9 (1.8–2.1)	↓
Blood & blood-forming organs	1.2 (1.1–1.4)	1.4 (1.2–1.5)	1.4 (1.3–1.6)	1.4 (1.2–1.5)	1.6 (1.4–1.8)	1.7 (1.5–1.8)	1.7 (1.5–1.9)	1.7 (1.6–1.9)	1.5 (1.3–1.7)	1.5 (1.3–1.7)	1.4 (1.2–1.5)	1.4 (1.2–1.5)	—
Male genital system	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	—
Social	0.9 (0.8–0.9)	1.1 (1.0–1.2)	0.9 (0.8–1.0)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; ICP-2 – International Classification of Primary Care - Version 2; RFE – reason for encounter.

Table 6.6: Most frequent patient reasons for encounter, 2006–07 to 2015–16

Patient reason for encounter	Rate per 100 encounters (95% CI)											↑ ^(e) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Prescription – all*	11.8 (11.2–12.4)	12.6 (11.9–13.2)	12.6 (12.0–13.2)	11.6 (11.0–12.2)	12.0 (11.4–12.7)	12.6 (11.9–13.4)	12.7 (12.0–13.5)	13.3 (12.5–14.0)	13.4 (12.7–14.1)	13.5 (12.8–14.1)	↑	
Check-up – all*	14.6 (13.9–15.2)	14.5 (13.8–15.1)	15.1 (14.5–15.8)	13.9 (13.3–14.5)	13.7 (13.0–14.3)	13.6 (13.0–14.3)	13.1 (12.4–13.7)	14.2 (13.5–14.8)	13.2 (12.6–13.8)	12.3 (11.7–13.0)	↓	
Test results*	6.9 (6.5–7.3)	7.6 (7.2–8.1)	7.8 (7.4–8.2)	8.1 (7.7–8.6)	8.0 (7.5–8.5)	8.5 (8.1–9.0)	9.1 (8.6–9.5)	9.4 (8.9–9.9)	9.5 (9.0–9.9)	10.2 (9.7–10.7)	↑	
Cough	5.8 (5.4–6.2)	6.2 (5.8–6.7)	6.8 (6.3–7.2)	6.9 (6.4–7.3)	6.7 (6.3–7.1)	6.7 (6.2–7.1)	6.3 (5.8–6.8)	5.5 (5.1–5.9)	6.3 (5.8–6.7)	6.2 (5.8–6.6)	–	
Immunisation/ vaccination – all*	4.3 (3.9–4.7)	4.8 (4.4–5.1)	5.3 (4.8–5.7)	6.5 (5.9–7.0)	4.8 (4.4–5.3)	4.2 (3.8–4.6)	4.6 (4.1–5.0)	5.2 (4.6–5.8)	3.4 (3.1–3.6)	5.0 (4.4–5.6)	–	
Administrative procedure – all*	1.9 (1.7–2.0)	2.4 (2.2–2.5)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	2.6 (2.4–2.8)	3.0 (2.7–3.2)	3.2 (3.0–3.4)	3.3 (3.1–3.5)	3.3 (3.1–3.5)	3.8 (3.5–4.1)	↑	
Back complaint*	3.2 (3.0–3.4)	3.2 (3.0–3.4)	3.1 (2.9–3.3)	3.1 (2.9–3.3)	3.1 (3.0–3.3)	3.1 (2.9–3.3)	3.2 (3.0–3.4)	3.2 (3.0–3.5)	3.4 (3.2–3.6)	3.1 (2.9–3.3)	–	
Rash*	2.8 (2.6–3.0)	2.5 (2.3–2.6)	2.6 (2.5–2.8)	2.4 (2.2–2.6)	2.7 (2.5–2.9)	2.6 (2.5–2.8)	2.6 (2.4–2.8)	2.6 (2.4–2.8)	2.7 (2.5–2.9)	2.7 (2.5–2.9)	–	
Throat complaint	3.3 (3.1–3.6)	3.3 (3.0–3.6)	3.2 (2.9–3.5)	2.9 (2.7–3.2)	3.1 (2.8–3.4)	3.2 (2.9–3.5)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.9 (2.6–3.1)	2.7 (2.5–3.0)	↓	
Blood test – all*	2.5 (2.3–2.7)	2.6 (2.4–2.8)	2.8 (2.6–3.1)	2.4 (2.2–2.7)	2.6 (2.4–2.8)	2.8 (2.6–3.1)	2.9 (2.6–3.1)	2.7 (2.4–2.9)	2.3 (2.1–2.5)	2.2 (2.0–2.5)	–	
Fever	1.8 (1.6–2.0)	2.1 (1.8–2.5)	1.9 (1.7–2.1)	2.2 (2.0–2.5)	2.0 (1.8–2.3)	1.9 (1.7–2.1)	1.9 (1.7–2.1)	1.8 (1.5–2.1)	1.8 (1.7–2.0)	2.2 (1.9–2.4)	–	
Depression*	2.0 (1.8–2.1)	2.1 (1.9–2.2)	2.1 (1.9–2.2)	2.2 (2.0–2.3)	2.2 (2.1–2.4)	2.2 (2.1–2.4)	2.3 (2.1–2.5)	2.1 (2.0–2.3)	2.3 (2.1–2.4)	2.0 (1.8–2.1)	–	
Abdominal pain*	2.2 (2.1–2.3)	2.2 (2.0–2.3)	2.1 (1.9–2.2)	2.0 (1.8–2.1)	2.2 (2.1–2.3)	2.2 (2.1–2.4)	2.0 (1.9–2.2)	2.1 (1.9–2.2)	2.1 (2.0–2.3)	1.9 (1.7–2.0)	↓	
Upper respiratory tract infection	2.4 (2.1–2.7)	2.2 (2.0–2.5)	2.3 (2.0–2.6)	2.2 (1.9–2.5)	2.0 (1.8–2.3)	1.9 (1.7–2.1)	2.3 (2.0–2.5)	1.7 (1.5–1.9)	2.1 (1.8–2.4)	1.7 (1.5–1.9)	↓	

(continued)

Table 6.6 (continued): Most frequent patient reasons for encounter, 2006–07 to 2015–16

Patient reason for encounter	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Headache*	1.9 (1.7–2.0)	1.9 (1.8–2.1)	1.9 (1.8–2.1)	1.8 (1.6–1.9)	1.7 (1.6–1.9)	1.8 (1.7–2.0)	1.7 (1.5–1.8)	1.5 (1.4–1.6)	1.7 (1.5–1.8)	1.7 (1.5–1.8)	1.7 (1.5–1.8)	–
Skin symptom/complaint, other	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.5 (1.4–1.6)	1.6 (1.5–1.7)	1.5 (1.4–1.7)	1.6 (1.4–1.7)	1.5 (1.4–1.7)	1.8 (1.7–2.0)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	↑
Sneezing/nasal congestion	1.1 (0.9–1.2)	1.4 (1.2–1.6)	1.3 (1.1–1.5)	1.6 (1.3–1.8)	1.4 (1.2–1.7)	1.5 (1.3–1.7)	1.2 (1.1–1.4)	1.2 (1.0–1.4)	1.3 (1.1–1.5)	1.3 (1.1–1.5)	1.5 (1.3–1.7)	↑
Hypertension/high blood pressure*	2.1 (1.8–2.5)	2.1 (1.8–2.3)	2.1 (1.9–2.4)	2.0 (1.7–2.3)	1.9 (1.7–2.2)	1.8 (1.5–2.0)	1.9 (1.7–2.2)	1.9 (1.6–2.2)	1.5 (1.3–1.7)	1.5 (1.3–1.7)	1.5 (1.3–1.7)	↓
Anxiety*	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.4 (1.2–1.5)	1.4 (1.3–1.6)	1.5 (1.3–1.6)	1.5 (1.3–1.6)	1.5 (1.3–1.6)	↑
Other referrals NEC	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.0)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.5)	1.4 (1.3–1.5)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.4 (1.3–1.6)	↑
Weakness/tiredness	1.4 (1.2–1.5)	1.4 (1.2–1.5)	1.5 (1.4–1.6)	1.4 (1.3–1.5)	1.3 (1.2–1.5)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.4 (1.2–1.5)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.4 (1.3–1.6)	–
Knee symptom/complaint	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.3 (1.2–1.4)	1.4 (1.3–1.5)	1.5 (1.4–1.6)	1.3 (1.2–1.4)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.4 (1.3–1.5)	–
Observation/health education/advice/diet – all*	1.7 (1.5–1.8)	1.8 (1.6–2.0)	1.6 (1.5–1.8)	1.9 (1.7–2.1)	1.8 (1.5–2.1)	1.6 (1.5–1.8)	1.6 (1.5–1.8)	1.7 (1.6–1.9)	1.5 (1.4–1.7)	1.5 (1.3–1.5)	1.4 (1.3–1.5)	↓
Ear pain/earache	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.4 (1.3–1.6)	1.3 (1.2–1.4)	1.5 (1.3–1.6)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	↓
Diabetes – all*	1.1 (1.0–1.2)	1.3 (1.1–1.4)	1.2 (1.1–1.4)	1.2 (1.0–1.3)	1.4 (1.3–1.6)	1.3 (1.1–1.4)	1.4 (1.3–1.6)	1.4 (1.2–1.5)	1.3 (1.1–1.4)	1.3 (1.1–1.4)	1.2 (1.0–1.3)	–
Shoulder symptom/complaint	1.2 (1.1–1.3)	1.0 (0.9–1.1)	1.4 (1.3–1.5)	1.1 (1.0–1.3)	1.2 (1.1–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	–
Foot/toe complaint	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.1)	1.1 (1.0–1.1)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	–
Diarrhoea	1.3 (1.2–1.5)	1.4 (1.3–1.6)	1.3 (1.2–1.4)	1.2 (1.1–1.4)	1.2 (1.1–1.3)	1.4 (1.2–1.5)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.1 (1.0–1.2)	↓

(continued)

Table 6.6 (continued): Most frequent patient reasons for encounter, 2006–07 to 2015–16

Patient reasons for encounter	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Sleep disturbance	1.1 (1.0–1.1)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	—	—
Swelling (skin)*	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	—
Vertigo/dizziness	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.0 (0.9–1.0)	1.1 (1.1–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (1.0–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	—
Follow-up encounter NOS	0.8 (0.6–0.9)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.7–1.0)	1.0 (0.9–1.1)	0.9 (0.7–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.7–1.0)	0.9 (0.7–1.0)	—
Leg/thigh complaint	1.0 (1.0–1.1)	0.9 (0.8–1.0)	1.0 (1.0–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.9–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.0)	1.0 (0.9–1.0)	1.0 (0.9–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↘
Vomiting	1.0 (0.9–1.1)	1.1 (1.0–1.2)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.7–0.8)	0.8 (0.8–0.9)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↘
Other reason for encounter NEC	1.0 (0.9–1.2)	0.7 (0.6–0.9)	0.8 (0.7–1.0)	0.9 (0.8–1.0)	1.0 (0.8–1.1)	0.9 (0.7–1.1)	1.0 (0.7–1.3)	0.8 (0.7–0.9)	0.7 (0.6–0.9)	0.7 (0.6–0.9)	0.7 (0.6–0.9)	0.7 (0.6–0.9)	↘
Chest pain NOS	1.2 (1.1–1.3)	1.1 (1.0–1.1)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.9–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.9 (0.8–0.9)	0.9 (0.8–0.9)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	↘
Total RFEs	150.8 (148.9–152.7)	153.0 (151.1–154.8)	156.5 (154.7–158.2)	155.0 (153.1–156.8)	155.5 (153.5–157.5)	154.7 (152.8–156.7)	154.5 (152.7–156.3)	155.3 (153.3–157.3)	153.6 (151.8–155.4)	153.1 (151.2–155.0)	153.1 (151.2–155.0)	153.1 (151.2–155.0)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↗↘ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-C-2 or ICP-C-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; NOS – not otherwise specified; RFE – reason for encounter; NEC – not elsewhere classified. This table includes individual RFEs that were recorded at a rate of ≥ 1.0 per 100 encounters in any year.

7 Problems managed

A 'problem managed' is a formal statement of the provider's understanding of a health problem presented by the patient, family or community, and can be described in terms of a disease, symptom or complaint, social problem, or ill-defined condition. At each patient encounter, up to four problems could be recorded by the GP and a minimum of one problem was compulsory. GPs were instructed to record each problem at the most specific level possible from the information available. As such, the problem managed may be limited to the level of a presenting symptom rather than a diagnosis.

The status of each problem to the patient – new (first presentation to a medical practitioner), or old (follow-up of previously managed problem) – was also indicated (see Glossary). The concept of a principal diagnosis, which is often used in hospital statistics, is not adopted in studies of general practice where multiple problem management is the norm rather than the exception. Further, the range of problems managed at the encounter often crosses multiple body systems and may include undiagnosed symptoms, psychosocial problems, chronic disease or preventive health, which makes the designation of a principal diagnosis difficult. Thus the order in which the problems were recorded by the GP is not significant.

This chapter includes data about the problems managed in general practice from each of the most recent 10 years of the BEACH study: 2006–07 to 2015–16. The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Significant change in the rate per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2006–07 and 2015–16. Examples of extrapolated change are given. The method used to extrapolate to national change estimates is described in Section 2.9. The number of GP–patient encounters claimed through the MBS nationally increased by 39.6 million (38%) between 2006–07 (103.4 million encounters) and 2015–16 (143.0 million encounters).^{6,9} As a result, a decreased rate of a particular 'measured event' per 100 encounters may yield a national increase in the absolute number of those events.

Detailed analyses of 'problems managed' by participating GPs in the 2015–16 BEACH year can be found in the companion report, *General practice activity in Australia 2015–16*.¹

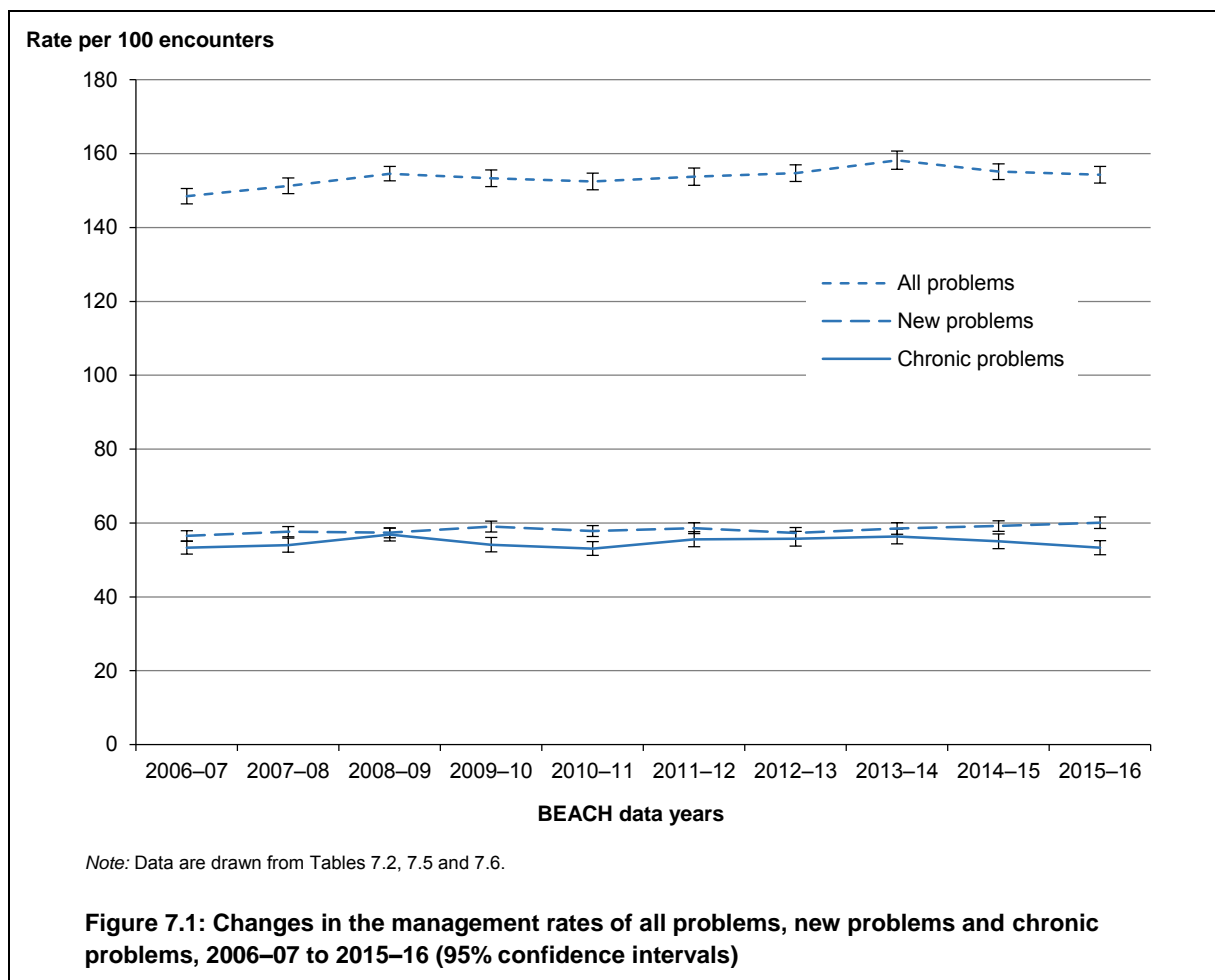
There are two ways to describe the relative frequency of problems managed: as a percentage of all problems managed in the study, or as a rate of problems managed per 100 encounters. Where groups of problems are reported (for example, circulatory problems), it must be remembered that more than one of that type of problem (such as hypertension and heart failure) may have been managed at a single encounter.

The reader must be mindful that a rate per 100 encounters for a single ungrouped problem, for example 'asthma, 2.0 per 100 encounters,' can be regarded as equivalent to 'asthma is managed at 2.0% of encounters', and can be extrapolated (with the methods described in Section 2.9) to accurately estimate the number of national encounters involving management of the selected problem. This is not the case for grouped concepts (ICPC-2 chapters and those marked with asterisks in the tables) for which extrapolations represent the number of problem contacts involving the management of any of the problems within the group at general practice encounters nationally. In these cases, an extrapolated result may be an overestimate of the number of encounters involving management of these problems. This is because multiple problems (within the selected group) can be recorded within a single encounter. To estimate more precisely the number of encounters nationally that involve

management of the grouped concept, the extrapolation has to be based on the proportion of encounters involving at least one of the concepts within the group.

Table 7.3b describes the proportion of encounters during which at least one problem has been managed within an ICPC-2 chapter, for each of the 10 years from 2006–07 to 2015–16. The table allows users to make the following kinds of statements: “in 2015–16 at least one respiratory problem was managed at 18.9% of encounters”, and then extrapolate this result (see Section 2.9). Such extrapolation suggests that at least one respiratory problem was managed at 27.0 million encounters nationally in 2015–16.

Figure 7.1 shows a statistically significant increase in the rate at which all problems were managed per 100 encounters over the 10 years to 2015–16. However, there was no change in the rate at which chronic problems were managed. This suggests that non-chronic problems were the major contributor to the increase in the number of problems managed. There was an increase over the decade in the rate at which new problems were managed.



7.1 Number of problems managed

GPs can record up to four problems at each encounter. Table 7.1 shows the number of problems managed at encounters over the decade. There were increases in the proportion of encounters at which two and four problems were managed, and a decrease in encounters where only one problem was managed. When extrapolated to all GP–patient encounters in Australia, this suggests there were about 12.5 million more occasions on which two problems were managed, and 2.0 million more occasions where four problems were managed by GPs in Australia in 2015–16 than in 2006–07. Despite the decrease in encounters where only one problem was managed, due to the overall increase in the number of encounters nationally, there were 20.5 million more occasions where one problem was managed in 2015–16 than in 2006–07.

These results led to a significant increase in the average number of problems managed at encounter, from 148.5 per 100 encounters in 2006–07 to 154.3 in 2015–16 (Table 7.2). This suggests there were 67.1 million more problems managed at GP–patient encounters in Australia in 2015–16 than in 2006–07.

7.2 Problems managed by ICPC-2 component

To provide a better understanding of the types of problems managed during general practice encounters, problems may be examined using the components of the ICPC-2 classification. The component structure of ICPC-2 is described in detail in Section 2.10.

Table 7.2 shows there were significant increases in the management rate of problems in a number of ICPC-2 components. Extrapolated to national general practice encounters, these increases represent about:

- 15.0 million more contacts with problems described by GPs in terms of ‘symptoms and complaints’ in 2015–16 than in 2006–07
- 2.8 million more contacts described in terms of ‘medications, treatments and therapeutics’ in 2015–16 than in 2006–07
- 1.6 million more contacts described as ‘test results’ in 2015–16 than in 2006–07
- 1.5 million more contacts with problems classified as ‘administrative’.

There was no change over the decade in the management of problems described as ‘diagnosis, diseases’. This component can be broken down into various subtypes (described in Section 2.10), many of which did not show change over the decade. There was a marginal decrease in the management rate of ‘infections’. However, due to the overall increase in the number of encounters in Australian general practice (as described in the introduction to this chapter), there were 7.6 million more contacts with problems classified as infections in 2015–16 than in 2006–07.

7.3 Problems managed by ICPC-2 chapter and individual problems managed

Problems managed by ICPC-2 chapter

Problems managed at general practice encounters classified by ICPC-2 chapter are described in Table 7.3a for all years from 2006–07 to 2015–16.

General and unspecified problems were the most frequently managed type of problem in 2015–16, their management rate increased from 16.2 per 100 encounters in 2006–07 to 20.0 per 100 in 2015–16, an increase of 23.5% over the decade.

There were also significant increases in the management rates of the following problem types at general practice encounters between 2006–07 and 2015–16:

- endocrine and metabolic problems, from 12.1 to 13.5 per 100 encounters
- psychological problems, from 10.9 to 13.1 per 100 encounters
- social problems, from 0.6 to 0.8 per 100 encounters.

There were marginal increases in the management rate of digestive problems (increasing from 10.4 to 11.1 per 100 encounters) and urological problems, from 3.1 to 3.5 per 100 encounters over the decade.

There were significant decreases in the management rates of:

- circulatory problems, from 17.4 to 15.1 per 100 encounters
- problems classified in the 'eye' chapter, from 2.7 to 2.2 per 100 encounters (Table 7.3a).

Comparing 2006–07 with 2015–16, there was no change in the management rate of respiratory problems. However, there was a statistically significant spike in the rate of respiratory problems in 2009–10 which was probably due to concern regarding H1N1 influenza.

Table 7.3b shows changes over time in the proportion of encounters during which at least one problem was managed per ICPC-2 chapter. The table shows that there were significant increases in the proportion of encounters at which at least one problem was managed. Examples include:

- general and unspecified problems (from 15.4% of encounters in 2006–07 to 18.5% in 2015–16), representing an additional 10.5 million encounters during which at least one general and unspecified problem was managed in 2015–16 compared with 2006–07
- psychological problems (from 10.4% to 12.4%), representing an additional 7.0 million encounters during which at least one psychological problem was managed in 2015–16 compared with 2006–07
- endocrine and metabolic problems (from 11.2% to 12.3%), representing an additional 6.0 million encounters in 2015–16 where at least one endocrine and metabolic problem was managed compared with 2006–07.

In contrast, the proportion of encounters during which at least one circulatory problem was managed decreased from 16.3% to 14.1%. However, due to the overall increase in general practice encounters nationally, this equated to 3.3 million more encounters during which at least one circulatory problem was managed in 2015–16 than in 2006–07. Similarly, there was a decrease in the proportion of encounters at which at least one eye problem was managed, but there were 460,000 additional encounters during which at least one ear problem was managed in 2015–16 compared with 2006–07.

Individual problems managed

The most frequently managed individual problems are described in Table 7.4. This demonstrates that in all years from 2006–07 to 2015–16, the most frequently managed problems were hypertension, check-up, upper respiratory tract infection (URTI) and immunisation/vaccination.

Though remaining the most frequently managed problem across the decade, the management rate of hypertension decreased from 2006–07 to 2015–16, from 9.6 per 100 encounters to 7.5 per 100. However, due to the overall increase in the number of GP encounters nationally, this equated to 800,000 more encounters at which hypertension was managed in 2015–16 than in 2006–07.

There was no overall change in the management rate of URTI between 2006–07 and 2015–16. However, as reported in the 2014 report, *General practice activity in Australia 2013–14*,¹⁹ a significant decrease was observed in the management rate of URTI between 2012–13 (5.8 per 100 encounters) and 2013–14 (4.9 per 100 encounters). In the most recent 2 years of data (2014–15 and 2015–16), the management rate has bounced back to the rate seen in 2012–13. A similar pattern occurred in the management rate of acute bronchitis/bronchiolitis. It appears these decreases in 2013–14 were isolated to that single period. The reasons for the drop observed in 2013–14 are unclear.

The management rate of immunisation/vaccination did not change significantly over the decade (4.7 per 100 encounters in 2006–07 and 5.3 in 2015–16). However, there were numerous fluctuations in the management rate over the decade, with a significant spike in 2009–10 (7.3 per 100 encounters) that coincided with the H1N1 influenza pandemic, and a significant decrease in 2014–15 (3.6 per 100 encounters) which may be explained by a delay in supply of the influenza vaccine in 2014–15, from early March to late April 2015.⁴² The BEACH data year runs from 1 April to 30 March, so fewer influenza vaccinations were given in the 2014–15 BEACH year than usual. The 2015–16 rate was similar to that recorded in 2013–14.

Between 2006–07 and 2015–16, there were statistically significant increases in the management rates of a number of problem types, including depression, general check-up, back complaints, prescriptions, anxiety, test results, administrative procedure, vitamin/nutritional deficiency, abnormal test results and bursitis/tendonitis/synovitis. When extrapolated to all GP–patient encounters across Australia, these changes represent:

- 2.2 million more occasions of depression management
- 1.7 million more general check-ups. It is likely that the introduction of MBS items for health assessments contributed to this increase. These health assessments are targeted towards particular groups of patients, including those aged 45–49 at risk of developing chronic disease,⁴³ those aged 75 years and over, and the 'Healthy Kids Check' for children of pre-school age (discontinued from 1 November 2015)
- 1.7 million more occasions of management of back complaints
- 1.6 million more contacts for test results and 1.1 million more contacts for abnormal test results. These increases may be explained by an increased rate of pathology test ordering over the decade, as described in Chapter 12
- 1.9 million more contacts for prescriptions
- 1.4 million more occasions of anxiety management
- 1.5 million more contacts for problems regarded as administrative procedures
- 1.5 million more occasions where vitamin/nutritional deficiency was managed
- 830,000 more occasions where bursitis/tendonitis/synovitis was managed.

In contrast, over the decade there was a significant decrease in the management rate of oral contraception. However, due to the overall increase in the number of general practice encounters, this equated to an additional 90,000 encounters involving management of oral contraception. There were also significant decreases in the management rate of ischaemic heart disease, cardiovascular check-up and fracture.

7.4 Most common new problems

There was a significant increase in the management rate of new problems from 56.5 per 100 encounters in 2006–07 to 60.1 in 2015–16. This suggests there were an additional 27.5 million new problems managed at GP–patient encounters in Australia in 2015–16 compared with 2006–07.

URTI was the most frequently managed new problem. Although there was no overall change in its management rate between 2006–07 and 2015–16, there was a marginal decrease in its management rate in 2013–14. This drop in new presentations was isolated to 2013–14. In 2014–15, the rate returned to the 2012–13 rate and was consistent in 2015–16. A similar pattern occurred in new presentations of acute bronchitis/bronchiolitis (Table 7.5).

There was a marginal increase in the rate of new presentations for immunisation/vaccination over the decade. There were also fluctuations that occurred during the decade that reflect the management of all immunisation/vaccinations problems, discussed in Section 7.3.

The management rate of new check-ups increased significantly (from 2.5 to 3.0 per 100 encounters). This is likely to be due to the ageing population and the introduction of MBS items specifically for check-ups (as discussed in Section 7.3). When extrapolated, this increase represents 1.7 million additional occasions where a check-up was managed as a new problem in Australia in 2015–16 compared with 2006–07.

7.5 Most frequently managed chronic problems

To identify chronic conditions, a list classified according to ICPC-2, based on work undertaken in 2004³² and regularly updated by the lead author (see ‘Chronic conditions’ grouper G84 <sydney.edu.au/medicine/fmrc/icpc-2-plus/demonstrator>), was applied to the BEACH data set. In other parts of this chapter, both chronic and non-chronic conditions (for example, diabetes and gestational diabetes) have been grouped together when reporting (for example, diabetes – all*, Table 7.4). In this section, only problems regarded as chronic have been included in the analysis. For this reason, the condition labels in Table 7.6 may differ from those in Table 7.4. Where the group used for the chronic analysis differs from that used in other analyses in this report, they are marked with a double asterisk (for example, Diabetes [non-gestational]**). Codes included in asterisked concepts are presented in Appendix 4, Table A4.2, available at <hdl.handle.net/2123/15482>.

Table 7.6 shows the most frequently managed chronic problems between 2006–07 and 2015–16. The management rate of chronic conditions did not change overall between 2006–07 and 2015–16 (53.3 per 100 encounters in both years). However, due to the increase in the number of GP visits nationally, we estimate that GPs managed 21.1 million more chronic problems in 2015–16, than they did a decade earlier.

The most common chronic problems managed were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis and lipid disorder.

From 2006–07 to 2015–16, there were significant increases in the management rates of:

- depressive disorder (representing 2.2 million more occasions of management in 2015–16 than in 2006–07)
- hypothyroidism/myxoedema (representing 670,000 more occasions of management)
- chronic back pain (400,000 more contacts for this problem) and unspecified chronic pain (also representing 400,000 more contacts for this problem in 2015–16 than in 2006–07).

There were marginally significant increases in the management rates of atrial fibrillation/flutter, shoulder syndrome, and schizophrenia.

There were significant decreases in the management rates of hypertension and ischaemic heart disease, and marginally significant decreases in the rates of asthma and heart failure (Table 7.6).

Table 7.1: Number of problems managed at encounter, 2006–07 to 2015–16

Number of problems managed at encounter	Per cent of encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
One problem	65.0 (63.7–66.2)	63.0 (61.7–64.3)	60.8 (59.6–61.9)	62.2 (60.9–63.5)	62.6 (61.2–63.9)	62.1 (60.8–63.4)	61.5 (60.2–62.8)	59.6 (58.2–61.0)	61.0 (59.7–62.2)	61.4 (60.1–62.7)	↓	
Two problems	24.0 (23.3–24.8)	25.4 (24.7–26.2)	26.7 (26.1–27.4)	25.4 (24.7–26.1)	25.4 (24.6–26.1)	25.5 (24.7–26.2)	25.7 (25.0–26.4)	26.3 (25.5–27.1)	26.2 (25.5–26.9)	26.1 (25.3–26.8)	↑	
Three problems	8.5 (8.1–9.0)	8.8 (8.3–9.3)	9.7 (9.2–10.1)	9.2 (8.7–9.7)	9.2 (8.6–9.7)	9.1 (8.6–9.6)	9.5 (9.0–10.0)	10.4 (9.8–11.0)	9.6 (9.1–10.1)	9.4 (8.9–9.9)	—	
Four problems	2.5 (2.2–2.7)	2.7 (2.4–3.0)	2.8 (2.6–3.1)	3.2 (2.8–3.5)	2.9 (2.6–3.3)	3.4 (3.0–3.8)	3.3 (3.0–3.7)	3.7 (3.3–4.1)	3.2 (2.9–3.5)	3.2 (2.8–3.5)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval.

Table 7.2: Problems managed by ICP-2 component, 2006–07 to 2015–16

ICPC-2 chapter	Rate per 100 encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Diagnosis, diseases	101.3 (99.6–103.0)	102.6 (100.7–104.4)	105.3 (103.5–107.0)	102.1 (100.2–104.0)	101.1 (99.1–103.0)	104.1 (102.1–106.1)	102.9 (100.9–104.9)	102.9 (100.8–105.0)	101.9 (99.9–103.8)	100.4 (98.4–102.4)	—	
Infections	24.5 (23.8–25.3)	24.8 (24.1–25.6)	24.9 (24.2–25.6)	24.8 (24.0–25.6)	24.7 (23.9–25.4)	24.6 (23.8–25.3)	23.5 (22.7–24.3)	21.9 (21.1–22.7)	23.1 (22.4–23.8)	23.0 (22.3–23.8)	↓	
Injuries	7.3 (7.0–7.6)	7.2 (6.9–7.5)	7.0 (6.8–7.3)	6.7 (6.5–7.0)	7.0 (6.7–7.2)	7.4 (7.1–7.7)	7.1 (6.9–7.4)	7.3 (7.0–7.6)	7.1 (6.8–7.4)	7.0 (6.7–7.3)	—	
Neoplasms	4.5 (4.2–4.8)	4.5 (4.1–4.9)	4.7 (4.4–5.0)	4.7 (4.3–5.0)	4.3 (4.1–4.6)	4.2 (3.9–4.5)	4.6 (4.3–5.0)	5.0 (4.7–5.4)	4.6 (4.3–5.0)	4.4 (4.1–4.7)	—	
Congenital anomalies	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	—	
Other diagnoses, diseases	64.2 (62.4–65.9)	65.3 (63.3–67.2)	68.0 (66.3–69.7)	65.2 (63.3–67.2)	64.5 (62.5–66.4)	67.2 (65.2–69.3)	66.9 (64.9–69.0)	67.9 (65.9–69.9)	66.4 (64.4–68.4)	65.3 (63.4–67.3)	—	
Symptoms and complaints	26.7 (25.9–27.5)	27.8 (27.0–28.7)	27.7 (26.9–28.5)	26.8 (26.0–27.6)	28.2 (27.4–29.1)	27.9 (27.0–28.8)	28.7 (27.8–29.6)	30.3 (29.3–31.2)	30.6 (29.7–31.4)	29.8 (29.0–30.7)	↑	
Diagnostic and preventive procedures	13.7 (13.0–14.5)	14.2 (13.5–14.8)	14.9 (14.2–15.7)	16.9 (16.0–17.7)	15.1 (14.3–15.9)	14.0 (13.2–14.7)	14.4 (13.7–15.2)	15.7 (14.9–16.6)	13.4 (12.8–14.0)	14.7 (13.9–15.4)	—	
Medications, treatments and therapeutics	3.2 (2.9–3.5)	2.9 (2.7–3.2)	3.3 (3.0–3.6)	3.4 (3.1–3.8)	3.7 (3.4–4.1)	3.4 (3.1–3.7)	3.9 (3.6–4.3)	4.4 (4.1–4.8)	4.3 (3.9–4.6)	4.3 (3.9–4.7)	↑	
Test results	1.6 (1.4–1.7)	1.8 (1.6–1.9)	1.5 (1.4–1.7)	1.8 (1.6–2.0)	1.9 (1.7–2.1)	1.8 (1.6–2.0)	2.0 (1.8–2.2)	2.2 (1.9–2.4)	2.2 (2.0–2.4)	2.3 (2.0–2.6)	↑	
Administrative	0.8 (0.7–0.8)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.1 (1.0–1.3)	1.3 (1.1–1.5)	1.4 (1.3–1.6)	1.4 (1.2–1.6)	1.5 (1.3–1.6)	1.6 (1.4–1.8)	↑	
Referrals and other RFEs	1.3 (1.2–1.5)	1.2 (1.0–1.3)	1.0 (0.9–1.1)	1.3 (1.1–1.4)	1.3 (1.1–1.5)	1.3 (1.1–1.5)	1.3 (1.2–1.5)	1.3 (1.1–1.4)	1.3 (1.2–1.5)	1.2 (1.1–1.3)	—	
Total problems	148.5 (146.4–150.6)	151.3 (149.2–153.4)	154.6 (152.6–156.5)	153.3 (151.1–155.5)	152.5 (150.2–154.7)	153.8 (151.4–156.1)	154.7 (152.5–157.0)	158.2 (155.7–160.7)	155.1 (153.0–157.2)	154.3 (152.0–156.6)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; ICP-2 – International Classification of Primary Care - Version 2; RFE – reason for encounter.

Table 7.3a: Problems managed by ICP-2 chapter, 2006–07 to 2015–16

ICPC-2 chapter	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↓ ^(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)	
General and unspecified	16.2 (15.6–16.8)	17.8 (17.1–18.5)	17.0 (16.4–17.7)	19.4 (18.6–20.2)	19.2 (18.5–20.0)	18.6 (17.8–19.3)	19.4 (18.7–20.1)	20.3 (19.4–21.3)	19.9 (19.2–20.7)	20.0 (19.2–20.8)	20.0 (19.2–20.8)	↑
Respiratory	19.6 (18.9–20.3)	19.5 (18.8–20.1)	20.8 (20.2–21.5)	22.2 (21.4–22.9)	20.4 (19.7–21.1)	20.0 (19.3–20.7)	20.1 (19.4–20.8)	19.0 (18.3–19.8)	18.5 (17.8–19.1)	19.5 (18.8–20.3)	19.5 (18.8–20.3)	§
Musculoskeletal	17.1 (16.6–17.6)	17.3 (16.7–17.8)	17.3 (16.8–17.8)	16.8 (16.1–17.6)	16.6 (16.1–17.1)	17.4 (16.9–17.9)	17.7 (17.2–18.3)	18.4 (17.8–18.9)	18.5 (18.0–19.0)	18.1 (17.5–18.6)	18.1 (17.5–18.6)	–
Skin	17.5 (16.9–18.2)	17.2 (16.5–17.9)	17.0 (16.5–17.5)	16.5 (15.9–17.1)	16.7 (16.2–17.2)	16.6 (16.1–17.2)	16.8 (16.2–17.4)	17.8 (17.1–18.5)	17.1 (16.5–17.7)	17.4 (16.8–18.1)	17.4 (16.8–18.1)	–
Circulatory	17.4 (16.7–18.1)	17.6 (16.8–18.3)	18.5 (17.8–19.3)	16.7 (16.0–17.4)	16.7 (15.9–17.4)	17.2 (16.4–18.0)	16.5 (15.8–17.3)	17.3 (16.5–18.1)	15.9 (15.1–16.6)	15.1 (14.4–15.8)	15.1 (14.4–15.8)	↓
Endocrine and metabolic	12.1 (11.6–12.6)	12.9 (12.4–13.5)	13.5 (13.0–14.1)	12.7 (12.1–13.2)	12.8 (12.2–13.4)	13.5 (13.0–14.1)	13.8 (13.1–14.4)	13.6 (13.0–14.1)	13.0 (12.5–13.6)	13.5 (12.9–14.1)	13.5 (12.9–14.1)	↑
Psychological	10.9 (10.5–11.4)	11.5 (10.9–12.0)	12.4 (11.9–12.9)	12.1 (11.6–12.7)	12.3 (11.8–12.9)	13.0 (12.3–13.6)	13.1 (12.4–13.7)	13.7 (13.0–14.3)	13.6 (12.9–14.3)	13.1 (12.6–13.7)	13.1 (12.6–13.7)	↑
Digestive	10.4 (10.1–10.7)	10.7 (10.4–11.1)	10.5 (10.2–10.8)	10.7 (10.3–11.0)	10.6 (10.3–10.9)	11.1 (10.8–11.4)	10.9 (10.6–11.3)	11.2 (10.8–11.5)	11.3 (11.0–11.7)	11.1 (10.7–11.4)	11.1 (10.7–11.4)	↑
Female genital system	5.7 (5.3–6.1)	5.8 (5.4–6.2)	6.1 (5.7–6.6)	5.5 (5.1–5.8)	5.5 (5.2–5.9)	5.5 (5.1–5.8)	5.3 (4.9–5.6)	5.6 (5.2–5.9)	5.4 (5.0–5.7)	5.4 (5.1–5.8)	5.4 (5.1–5.8)	–
Neurological	3.7 (3.6–3.9)	3.6 (3.4–3.7)	3.8 (3.6–3.9)	3.5 (3.3–3.6)	3.7 (3.6–3.9)	3.6 (3.4–3.8)	3.6 (3.5–3.8)	4.0 (3.8–4.2)	4.1 (3.9–4.3)	4.0 (3.8–4.1)	4.0 (3.8–4.1)	–
Ear	3.8 (3.6–3.9)	3.8 (3.6–3.9)	3.9 (3.7–4.1)	3.7 (3.5–3.8)	3.9 (3.7–4.1)	3.7 (3.5–3.8)	3.8 (3.6–4.0)	3.5 (3.4–3.7)	3.6 (3.5–3.8)	3.6 (3.4–3.8)	3.6 (3.4–3.8)	–
Pregnancy and family planning	3.9 (3.6–4.2)	3.9 (3.6–4.2)	3.7 (3.4–3.9)	3.8 (3.6–4.1)	3.9 (3.6–4.2)	3.8 (3.6–4.1)	3.7 (3.4–4.0)	3.5 (3.2–3.7)	4.0 (3.7–4.3)	3.6 (3.3–3.9)	3.6 (3.3–3.9)	–
Urology	3.1 (3.0–3.3)	3.1 (3.0–3.3)	3.3 (3.2–3.5)	3.2 (3.1–3.4)	3.2 (3.1–3.4)	3.2 (3.0–3.3)	3.5 (3.3–3.6)	3.6 (3.5–3.8)	3.5 (3.3–3.6)	3.5 (3.3–3.7)	3.5 (3.3–3.7)	↑
Eye	2.7 (2.5–2.8)	2.6 (2.4–2.7)	2.7 (2.6–2.8)	2.5 (2.3–2.6)	2.5 (2.4–2.6)	2.4 (2.3–2.6)	2.3 (2.1–2.4)	2.2 (2.1–2.4)	2.3 (2.2–2.5)	2.2 (2.1–2.4)	2.2 (2.1–2.4)	↓

(continued)

Table 7.3a (continued): Problems managed by ICPC-2 chapter, 2006–07 to 2015–16

	Rate per 100 encounters (95% CI)											
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
ICPC-2 chapter												^(a) ↑ ↓
Male genital system	1.8 (1.7–2.0)	1.8 (1.7–1.9)	2.0 (1.9–2.2)	1.9 (1.7–2.0)	1.9 (1.7–2.0)	1.8 (1.7–2.0)	1.8 (1.7–2.0)	1.9 (1.8–2.1)	1.8 (1.7–2.0)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	—
Blood & blood-forming organs	1.7 (1.5–1.8)	1.6 (1.5–1.8)	1.5 (1.3–1.6)	1.5 (1.4–1.6)	1.6 (1.4–1.7)	1.6 (1.5–1.8)	1.6 (1.5–1.8)	1.7 (1.6–1.8)	1.6 (1.5–1.8)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	—
Social problems	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.8)	↑
Total problems	148.5 (146.4–150.6)	151.3 (149.2–153.4)	154.6 (152.6–156.5)	153.3 (151.1–155.5)	152.5 (150.2–154.7)	153.8 (151.4–156.1)	154.7 (152.5–157.0)	158.2 (155.7–160.7)	155.1 (153.0–157.2)	154.3 (152.0–156.6)	154.3 (152.0–156.6)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Note: CI – confidence interval; ICPC-2 – International Classification of Primary Care - Version 2.

Table 7.3b: Presence of at least one problem managed per ICP-C-2 chapter, 2006–07 to 2015–16

ICPC-2 chapter	Per cent of encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Respiratory	18.9 (18.3–19.6)	18.7 (18.1–19.3)	20.1 (19.5–20.7)	21.3 (20.6–22.0)	19.6 (18.9–20.2)	19.2 (18.6–19.9)	19.3 (18.6–20.0)	18.2 (17.5–18.9)	17.8 (17.2–18.4)	18.9 (18.2–19.6)	↓	
General and unspecified	15.4 (14.9–15.9)	16.8 (16.2–17.4)	16.1 (15.6–16.6)	18.1 (17.4–18.8)	17.9 (17.2–18.5)	17.3 (16.7–18.0)	18.0 (17.4–18.6)	18.7 (18.0–19.4)	18.4 (17.8–19.0)	18.5 (17.8–19.1)	↑	
Musculoskeletal	16.4 (15.9–16.8)	16.5 (16.0–17.0)	16.5 (16.1–16.9)	16.1 (15.4–16.8)	15.9 (15.4–16.3)	16.6 (16.2–17.1)	16.9 (16.4–17.4)	17.4 (16.9–17.9)	17.5 (17.0–17.9)	17.1 (16.6–17.6)	–	
Skin	16.5 (15.9–17.1)	16.1 (15.6–16.7)	16.1 (15.6–16.5)	15.6 (15.1–16.1)	15.8 (15.4–16.3)	15.7 (15.2–16.2)	16.0 (15.4–16.5)	16.7 (16.1–17.3)	16.1 (15.6–16.6)	16.4 (15.8–16.9)	–	
Circulatory	16.3 (15.7–17.0)	16.4 (15.7–17.1)	17.2 (16.6–17.9)	15.5 (14.9–16.1)	15.5 (14.9–16.2)	16.0 (15.3–16.7)	15.3 (14.7–16.0)	16.1 (15.3–16.8)	14.6 (14.0–15.3)	14.1 (13.5–14.7)	↓	
Psychological	10.4 (9.9–10.8)	10.8 (10.3–11.3)	11.7 (11.2–12.1)	11.4 (10.9–11.9)	11.7 (11.2–12.1)	12.1 (11.5–12.6)	12.3 (11.8–12.8)	12.8 (12.3–13.4)	12.7 (12.1–13.2)	12.4 (11.9–12.9)	↑	
Endocrine and metabolic	11.2 (10.7–11.6)	11.8 (11.3–12.3)	12.3 (11.9–12.8)	11.6 (11.1–12.0)	11.8 (11.3–12.3)	12.3 (11.8–12.8)	12.5 (11.9–13.0)	12.4 (11.9–12.8)	11.8 (11.3–12.2)	12.3 (11.7–12.8)	↑	
Digestive	10.1 (9.8–10.4)	10.4 (10.1–10.7)	10.1 (9.8–10.4)	10.3 (10.0–10.6)	10.3 (10.0–10.6)	10.7 (10.4–11.0)	10.5 (10.2–10.9)	10.7 (10.4–11.0)	10.9 (10.6–11.2)	10.7 (10.3–11.0)	–	
Female genital system	5.3 (5.0–5.7)	5.4 (5.0–5.7)	5.7 (5.3–6.0)	5.0 (4.7–5.3)	5.1 (4.8–5.4)	5.0 (4.7–5.3)	4.9 (4.6–5.2)	5.2 (4.8–5.5)	5.0 (4.7–5.3)	5.0 (4.7–5.3)	–	
Neurological	3.7 (3.5–3.9)	3.5 (3.4–3.7)	3.7 (3.5–3.9)	3.4 (3.2–3.6)	3.7 (3.5–3.8)	3.5 (3.3–3.7)	3.6 (3.4–3.8)	3.9 (3.7–4.1)	4.0 (3.9–4.2)	3.9 (3.7–4.1)	–	
Ear	3.7 (3.5–3.9)	3.7 (3.6–3.9)	3.8 (3.7–4.0)	3.6 (3.5–3.8)	3.8 (3.7–4.0)	3.6 (3.4–3.8)	3.8 (3.6–3.9)	3.5 (3.3–3.6)	3.6 (3.4–3.7)	3.6 (3.4–3.7)	–	
Pregnancy and family planning	3.8 (3.6–4.1)	3.8 (3.5–4.1)	3.6 (3.3–3.8)	3.7 (3.5–4.0)	3.8 (3.5–4.1)	3.7 (3.5–4.0)	3.6 (3.3–3.9)	3.4 (3.2–3.6)	3.9 (3.6–4.2)	3.5 (3.2–3.7)	–	
Urology	3.1 (3.0–3.3)	3.1 (2.9–3.2)	3.3 (3.1–3.4)	3.2 (3.0–3.3)	3.2 (3.0–3.3)	3.1 (3.0–3.3)	3.4 (3.3–3.6)	3.6 (3.4–3.8)	3.4 (3.3–3.6)	3.4 (3.3–3.6)	↑	
Eye	2.6 (2.5–2.8)	2.5 (2.4–2.7)	2.7 (2.6–2.8)	2.5 (2.3–2.6)	2.5 (2.3–2.6)	2.4 (2.3–2.6)	2.2 (2.1–2.4)	2.2 (2.1–2.3)	2.3 (2.2–2.4)	2.2 (2.1–2.3)	↓	

(continued)

Table 7.3b (continued): Presence of at least one problem managed per ICPC-2 chapter, 2006–07 to 2015–16

ICPC-2 chapter	Per cent of encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Male genital system	1.8 (1.7–2.0)	1.7 (1.6–1.9)	2.0 (1.9–2.1)	1.8 (1.7–2.0)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.9 (1.8–2.0)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	—
Blood & blood-forming organs	1.6 (1.5–1.8)	1.6 (1.5–1.8)	1.4 (1.3–1.6)	1.5 (1.4–1.6)	1.6 (1.4–1.7)	1.6 (1.5–1.8)	1.6 (1.5–1.7)	1.7 (1.5–1.8)	1.6 (1.5–1.8)	1.6 (1.5–1.8)	1.6 (1.5–1.7)	—
Social problems	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.8)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Note: CI – confidence interval; ICPC-2 – International Classification of Primary Care - Version 2.

Table 7.4: Most frequently managed problems, 2006–07 to 2015–16

Problem managed	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Hypertension*	9.6 (9.1–10.0)	9.9 (9.4–10.5)	10.1 (9.6–10.6)	9.1 (8.6–9.6)	8.7 (8.2–9.2)	9.1 (8.5–9.6)	8.6 (8.1–9.1)	8.7 (8.1–9.2)	7.9 (7.4–8.3)	7.5 (7.0–7.9)	↘	
Check-up – all*	6.6 (6.2–7.0)	6.3 (6.0–6.7)	6.7 (6.3–7.1)	6.6 (6.2–7.0)	6.4 (6.0–6.8)	6.4 (6.0–6.8)	6.4 (6.0–6.8)	7.0 (6.5–7.4)	6.9 (6.5–7.2)	6.3 (5.9–6.6)	–	
General check-up*	2.4 (2.2–2.6)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	3.0 (2.7–3.2)	2.7 (2.5–2.9)	2.8 (2.6–3.0)	2.9 (2.7–3.1)	3.1 (2.9–3.3)	3.0 (2.8–3.2)	2.9 (2.7–3.1)	↗	
Female genital check-up/Pap smear*	1.7 (1.5–1.9)	1.8 (1.6–2.0)	2.0 (1.8–2.3)	1.7 (1.5–1.9)	1.7 (1.5–1.9)	1.7 (1.5–1.9)	1.6 (1.4–1.7)	1.7 (1.5–1.8)	1.5 (1.4–1.7)	1.6 (1.4–1.7)	–	
Cardiovascular check-up*	1.3 (1.1–1.5)	1.2 (1.0–1.4)	1.3 (1.1–1.5)	1.0 (0.8–1.1)	1.1 (1.0–1.3)	1.0 (0.9–1.2)	0.8 (0.7–0.9)	1.2 (0.9–1.4)	0.9 (0.8–1.1)	0.9 (0.7–1.0)	↘	
Upper respiratory tract infection	5.8 (5.3–6.2)	6.2 (5.7–6.7)	6.1 (5.7–6.6)	6.0 (5.5–6.4)	5.4 (5.1–5.8)	6.0 (5.5–6.4)	5.8 (5.3–6.3)	4.9 (4.5–5.3)	5.8 (5.4–6.2)	5.5 (5.1–5.8)	↘	
Immunisation/ vaccination – all*	4.7 (4.3–5.2)	5.2 (4.8–5.6)	5.7 (5.2–6.2)	7.3 (6.7–7.8)	5.5 (5.0–6.0)	4.7 (4.2–5.1)	5.0 (4.5–5.5)	5.8 (5.1–6.4)	3.6 (3.3–3.9)	5.3 (4.8–5.9)	↘	
Depression*	3.7 (3.5–3.9)	4.0 (3.8–4.2)	4.2 (4.0–4.5)	4.3 (4.0–4.6)	4.2 (4.0–4.4)	4.4 (4.2–4.7)	4.2 (3.9–4.4)	4.3 (4.1–4.5)	4.5 (4.2–4.7)	4.2 (4.0–4.4)	↗	
Diabetes – all*	3.6 (3.4–3.9)	3.9 (3.6–4.1)	4.1 (3.9–4.3)	3.7 (3.5–3.9)	4.0 (3.7–4.2)	4.2 (3.9–4.4)	4.2 (4.0–4.5)	4.2 (3.9–4.5)	4.0 (3.8–4.3)	4.0 (3.8–4.3)	–	
Arthritis – all*	3.7 (3.5–3.9)	3.6 (3.4–3.8)	3.8 (3.6–4.0)	3.9 (3.6–4.3)	3.7 (3.5–3.9)	4.0 (3.7–4.2)	3.8 (3.6–4.0)	4.0 (3.8–4.2)	3.8 (3.6–4.0)	3.5 (3.3–3.7)	–	
Osteoarthritis*	2.6 (2.4–2.8)	2.6 (2.4–2.8)	2.8 (2.6–2.9)	2.9 (2.6–3.2)	2.7 (2.5–2.9)	3.0 (2.8–3.2)	2.8 (2.6–3.0)	2.9 (2.7–3.1)	2.9 (2.7–3.1)	2.6 (2.4–2.8)	–	
Back complaint*	2.6 (2.5–2.8)	2.7 (2.6–2.9)	2.7 (2.6–2.9)	2.7 (2.5–2.9)	2.7 (2.5–2.9)	2.8 (2.6–3.0)	2.9 (2.8–3.1)	3.1 (2.9–3.4)	3.3 (3.2–3.5)	3.1 (2.9–3.3)	↗	
Lipid disorder	3.5 (3.2–3.7)	3.7 (3.4–4.0)	3.9 (3.7–4.2)	3.5 (3.2–3.7)	3.1 (2.8–3.3)	3.5 (3.3–3.7)	3.3 (3.1–3.6)	3.1 (2.8–3.3)	3.0 (2.8–3.2)	3.0 (2.8–3.3)	–	
Prescription – all*	2.2 (1.9–2.4)	2.0 (1.7–2.2)	2.1 (1.9–2.4)	2.3 (2.0–2.6)	2.5 (2.2–2.8)	2.4 (2.1–2.7)	2.7 (2.4–3.0)	3.1 (2.7–3.4)	2.9 (2.6–3.3)	2.9 (2.6–3.3)	↗	

(continued)

Table 7.4 (continued): Most frequently managed problems, 2006–07 to 2015–16

Problem managed	Rate per 100 encounters (95% CI)											↑ ^(e) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Gastro-oesophageal reflux disease*	2.3 (2.1–2.4)	2.3 (2.1–2.4)	2.5 (2.3–2.6)	2.5 (2.3–2.7)	2.3 (2.1–2.4)	2.6 (2.4–2.8)	2.6 (2.4–2.8)	2.6 (2.4–2.7)	2.8 (2.6–3.0)	2.6 (2.4–2.7)	2.6 (2.4–2.7)	↑
Test results*	1.6 (1.4–1.7)	1.8 (1.6–1.9)	1.5 (1.4–1.7)	1.8 (1.6–2.0)	1.9 (1.7–2.1)	1.8 (1.6–2.0)	2.0 (1.8–2.2)	2.2 (1.9–2.4)	2.2 (2.0–2.4)	2.2 (2.0–2.4)	2.3 (2.0–2.6)	↑
Anxiety*	1.7 (1.6–1.9)	1.8 (1.6–1.9)	1.9 (1.8–2.1)	1.8 (1.6–1.9)	1.9 (1.8–2.1)	1.9 (1.8–2.1)	2.1 (1.9–2.3)	2.2 (2.1–2.4)	2.2 (2.1–2.4)	2.2 (2.1–2.4)	2.2 (2.0–2.3)	↑
Asthma	2.3 (2.1–2.4)	2.2 (2.0–2.3)	2.2 (2.1–2.3)	2.1 (1.9–2.3)	2.2 (2.0–2.3)	2.0 (1.9–2.1)	2.2 (2.0–2.3)	2.0 (1.8–2.1)	2.1 (1.9–2.2)	2.0 (1.8–2.1)	2.0 (1.8–2.1)	↓
Acute bronchitis/ bronchiolitis	2.2 (2.1–2.4)	2.4 (2.2–2.6)	2.6 (2.4–2.8)	2.4 (2.2–2.6)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.3 (2.1–2.5)	1.9 (1.7–2.0)	2.2 (2.0–2.4)	2.2 (2.0–2.4)	2.0 (1.8–2.2)	§
Urinary tract infection*	1.6 (1.5–1.8)	1.6 (1.5–1.7)	1.7 (1.6–1.8)	1.8 (1.6–1.9)	1.8 (1.7–1.9)	1.7 (1.6–1.8)	1.7 (1.6–1.8)	1.8 (1.7–1.9)	1.7 (1.6–1.8)	1.7 (1.6–1.8)	1.8 (1.7–1.9)	—
Contact dermatitis	1.9 (1.8–2.0)	1.8 (1.7–1.9)	1.9 (1.8–2.0)	1.6 (1.5–1.7)	1.7 (1.6–1.8)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.7 (1.6–1.8)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.8 (1.6–1.9)	—
Sleep disturbance	1.6 (1.4–1.7)	1.6 (1.5–1.7)	1.6 (1.4–1.7)	1.4 (1.3–1.6)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.6 (1.4–1.7)	1.5 (1.4–1.7)	1.7 (1.5–1.8)	1.7 (1.5–1.8)	1.6 (1.5–1.7)	—
Administrative procedure – all*	0.8 (0.7–0.8)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.1 (1.0–1.3)	1.3 (1.1–1.5)	1.4 (1.3–1.6)	1.4 (1.2–1.6)	1.5 (1.3–1.6)	1.5 (1.4–1.8)	1.6 (1.4–1.8)	↑
Vitamin/nutritional deficiency	0.6 (0.5–0.7)	0.9 (0.8–1.0)	1.1 (1.0–1.2)	1.2 (1.0–1.3)	1.3 (1.1–1.4)	1.3 (1.2–1.5)	1.5 (1.3–1.6)	1.4 (1.3–1.5)	1.4 (1.2–1.5)	1.4 (1.2–1.5)	1.5 (1.3–1.6)	↑
Abnormal test results*	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.1–1.4)	1.3 (1.1–1.4)	1.4 (1.3–1.5)	↑
Gastroenteritis*	1.7 (1.5–1.8)	1.7 (1.5–1.8)	1.4 (1.3–1.5)	1.4 (1.3–1.6)	1.4 (1.3–1.5)	1.5 (1.4–1.6)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	↓
Bursitis/tendonitis/ synovitis NOS	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.1)	1.1 (1.1–1.2)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	↑
Atrial fibrillation/flutter	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.4 (1.3–1.6)	1.5 (1.4–1.7)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.1–1.4)	↑

(continued)

Table 7.4 (continued): Most frequently managed problems, 2006–07 to 2015–16

Problem managed	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Sinusitis acute/chronic	1.4 (1.3–1.5)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.3 (1.2–1.5)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.1–1.4)	—	
Sprain/strain*	1.5 (1.4–1.7)	1.6 (1.4–1.7)	1.4 (1.3–1.5)	1.4 (1.3–1.6)	1.4 (1.3–1.5)	1.4 (1.3–1.6)	1.4 (1.2–1.5)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.4)	↓	
Skin disease, other	0.9 (0.9–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.9–1.0)	1.0 (0.9–1.1)	1.2 (1.0–1.3)	1.0 (0.9–1.1)	1.2 (1.0–1.3)	↑	
Headache*	1.3 (1.2–1.3)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.2)	1.2 (1.1–1.3)	—	
Pregnancy*	1.3 (1.1–1.4)	1.3 (1.2–1.5)	1.3 (1.1–1.4)	1.4 (1.3–1.6)	1.4 (1.3–1.6)	1.3 (1.2–1.4)	1.3 (1.1–1.5)	1.1 (1.0–1.3)	1.2 (1.0–1.4)	1.1 (1.0–1.3)	—	
Viral disease, other/NOS	1.1 (0.9–1.2)	1.2 (1.1–1.4)	1.2 (1.0–1.4)	1.1 (1.0–1.3)	1.2 (1.0–1.4)	1.2 (1.0–1.4)	1.0 (0.9–1.1)	1.1 (0.9–1.2)	1.1 (0.9–1.2)	1.1 (1.0–1.3)	—	
Laceration/cut	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.8–0.9)	0.9 (0.9–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	↑	
Solar keratosis/sunburn	1.3 (1.2–1.4)	1.4 (1.1–1.6)	1.2 (1.1–1.4)	1.3 (1.1–1.4)	1.1 (1.0–1.3)	1.1 (0.9–1.2)	1.1 (1.0–1.3)	1.3 (1.1–1.4)	1.2 (1.1–1.4)	1.1 (1.0–1.2)	↓	
Malignant neoplasm, skin	1.1 (1.0–1.2)	1.2 (1.0–1.3)	1.2 (1.0–1.3)	1.2 (1.1–1.4)	1.1 (1.0–1.2)	1.1 (0.9–1.2)	1.2 (1.0–1.3)	1.4 (1.2–1.6)	1.2 (1.1–1.4)	1.1 (0.9–1.2)	—	
Oral contraception*	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	↔	
Osteoporosis	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	—	
Ischaemic heart disease*	1.3 (1.2–1.4)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.2 (1.0–1.3)	1.1 (1.0–1.3)	1.1 (0.9–1.2)	1.1 (0.9–1.2)	1.1 (1.0–1.3)	1.1 (1.0–1.3)	0.9 (0.8–1.0)	↔	
Acute otitis media/myringitis	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	↓	
Chronic obstructive pulmonary disease	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	—	

(continued)

Table 7.4 (continued): Most frequently managed problems, 2006–07 to 2015–16

Problem managed	Rate per 100 encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Fracture*	1.0 (1.0–1.1)	1.0 (0.9–1.1)	0.9 (0.9–1.0)	0.9 (0.8–0.9)	0.9 (0.9–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.0)	0.9 (0.8–0.9)	0.9 (0.8–0.9)	↔
Tonsillitis*	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.2)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↘
Observation/health education/advice/diet – all*	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	1.1 (0.9–1.3)	1.0 (0.8–1.3)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	–
Total problems	148.5 (146.4–150.6)	151.3 (149.2–153.4)	154.6 (152.6–156.5)	153.3 (151.1–155.5)	152.5 (150.2–154.7)	153.8 (151.4–156.1)	154.7 (152.5–157.0)	158.2 (155.7–160.7)	155.1 (153.0–157.2)	154.3 (152.0–156.6)	154.3 (152.0–156.6)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↘ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗↘ indicates a marginally significant change in 2015–16 compared with 2006–07; – indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.
* Includes multiple ICP-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; NOS – not otherwise specified. This table includes individual problems that were managed at ≥ 1.0 per 100 encounters in any year.

Table 7.5: Most frequently managed new problems, 2006–07 to 2015–16

New problem managed	Rate per 100 encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Upper respiratory tract infection	4.4 (4.1–4.8)	4.8 (4.4–5.2)	4.7 (4.4–5.0)	4.6 (4.3–5.0)	4.1 (3.8–4.5)	4.6 (4.3–5.0)	4.5 (4.1–4.9)	3.8 (3.5–4.1)	4.4 (4.1–4.8)	4.2 (3.9–4.6)	4.2 (3.9–4.6)	↑
Immunisation/vaccination – all*	2.8 (2.5–3.1)	2.8 (2.5–3.1)	2.8 (2.5–3.1)	4.3 (3.9–4.7)	3.0 (2.7–3.3)	2.6 (2.3–2.9)	3.1 (2.7–3.4)	3.7 (3.2–4.2)	2.4 (2.1–2.6)	3.5 (3.1–3.9)	3.5 (3.1–3.9)	↓
Check-up – all*	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.8 (2.6–3.0)	2.7 (2.4–2.9)	2.9 (2.6–3.1)	2.9 (2.6–3.1)	3.0 (2.7–3.2)	3.1 (2.9–3.3)	3.0 (2.7–3.2)	3.0 (2.7–3.2)	↑
Acute bronchitis/bronchiolitis	1.6 (1.5–1.7)	1.7 (1.6–1.9)	1.9 (1.8–2.1)	1.7 (1.6–1.9)	1.8 (1.7–2.0)	1.8 (1.6–2.0)	1.7 (1.5–1.8)	1.3 (1.2–1.4)	1.6 (1.5–1.8)	1.4 (1.3–1.6)	1.4 (1.3–1.6)	↓
Urinary tract infection*	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (1.0–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	—
Gastroenteritis*	1.3 (1.2–1.4)	1.3 (1.2–1.5)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.0–1.3)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	↓
Total new problems	56.5 (55.1–57.9)	57.7 (56.3–59.1)	57.4 (56.0–58.7)	59.1 (57.6–60.5)	57.8 (56.4–59.3)	58.6 (57.1–60.0)	57.3 (55.7–58.8)	58.5 (57.0–60.1)	59.2 (57.8–60.6)	60.1 (58.5–61.6)	60.1 (58.5–61.6)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

* Includes multiple ICPD-2 or ICPD-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; NOS – not otherwise specified. This table includes individual new problems that were managed at a rate of ≥ 1.0 per 100 encounters in any year.

Table 7.6: Most frequently managed chronic problems, 2006–07 to 2015–16

Chronic problem managed	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Hypertension (non-gestational)**	9.5 (9.0–10.0)	9.9 (9.3–10.4)	10.1 (9.6–10.6)	9.1 (8.6–9.5)	8.7 (8.2–9.1)	9.0 (8.5–9.6)	8.6 (8.1–9.1)	8.6 (8.1–9.2)	7.9 (7.4–8.3)	7.5 (7.0–7.9)	↓	
Depressive disorder**	3.7 (3.5–3.8)	3.9 (3.7–4.2)	4.2 (4.0–4.4)	4.3 (4.0–4.5)	4.2 (3.9–4.4)	4.4 (4.1–4.6)	4.1 (3.9–4.3)	4.3 (4.0–4.5)	4.4 (4.2–4.7)	4.2 (3.9–4.4)	↑	
Diabetes (non-gestational)**	3.6 (3.4–3.9)	3.8 (3.6–4.1)	4.1 (3.8–4.3)	3.7 (3.5–3.9)	4.0 (3.7–4.2)	4.1 (3.9–4.4)	4.2 (3.9–4.5)	4.2 (3.9–4.4)	4.0 (3.7–4.2)	4.0 (3.7–4.3)	–	
Chronic arthritis**	3.7 (3.5–3.9)	3.6 (3.4–3.8)	3.8 (3.6–4.0)	3.9 (3.6–4.3)	3.7 (3.5–3.9)	3.9 (3.7–4.2)	3.8 (3.5–4.0)	4.0 (3.8–4.2)	3.8 (3.6–4.0)	3.5 (3.3–3.7)	–	
Lipid disorder	3.5 (3.2–3.7)	3.7 (3.4–4.0)	3.9 (3.7–4.2)	3.5 (3.2–3.7)	3.1 (2.8–3.3)	3.5 (3.3–3.7)	3.3 (3.1–3.6)	3.1 (2.8–3.3)	3.0 (2.8–3.2)	3.0 (2.8–3.3)	–	
Oesophageal disease	2.3 (2.1–2.5)	2.3 (2.2–2.5)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.3 (2.1–2.5)	2.7 (2.5–2.8)	2.6 (2.4–2.8)	2.6 (2.5–2.8)	2.8 (2.7–3.0)	2.6 (2.4–2.8)	–	
Asthma	2.3 (2.1–2.4)	2.2 (2.0–2.3)	2.2 (2.1–2.3)	2.1 (1.9–2.3)	2.2 (2.0–2.3)	2.0 (1.9–2.1)	2.2 (2.0–2.3)	2.0 (1.8–2.1)	2.1 (1.9–2.2)	2.0 (1.8–2.1)	↓	
Atrial fibrillation/flutter	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.4 (1.3–1.6)	1.5 (1.4–1.7)	1.3 (1.2–1.4)	1.3 (1.1–1.4)	↑	
Malignant neoplasm, skin	1.1 (1.0–1.2)	1.2 (1.0–1.3)	1.2 (1.0–1.3)	1.2 (1.1–1.4)	1.1 (1.0–1.2)	1.1 (0.9–1.2)	1.2 (1.0–1.3)	1.4 (1.2–1.6)	1.2 (1.1–1.4)	1.1 (0.9–1.2)	–	
Osteoporosis	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	–	
Hypothyroidism/myxoedema	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.7 (0.6–0.7)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	↑	
Back syndrome with radiating pain**	0.8 (0.8–0.9)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.0 (0.8–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	–	
Ischaemic heart disease**	1.3 (1.2–1.4)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.2 (1.0–1.3)	1.1 (1.0–1.3)	1.1 (0.9–1.2)	1.1 (0.9–1.2)	1.1 (1.0–1.3)	1.1 (1.0–1.3)	0.9 (0.8–1.0)	↓	

(continued)

Table 7.6 (continued): Most frequently managed chronic problems, 2006–07 to 2015–16

Chronic problem managed	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Chronic obstructive pulmonary disease	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	—
Obesity (BMI > 30)	0.8 (0.6–0.9)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.8 (0.6–1.0)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.8 (0.6–0.9)	—
Shoulder syndrome (excluding arthritis)**	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	↑
Gout	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.6–0.7)	—
Chronic skin ulcer (including varicose ulcer)	0.6 (0.6–0.7)	0.5 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	—
Migraine	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	—
Heart failure	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	↔
Chronic back pain**	0.3 (0.2–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	↑
Schizophrenia	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	↑
Dementia (including senile, Alzheimer's)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.8)	0.6 (0.5–0.7)	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	—
Chronic pain NOS	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	↑
Anxiety disorder**	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	—
Total chronic problems	53.3 (51.6–55.0)	54.0 (52.1–55.9)	56.9 (55.1–58.6)	54.1 (52.2–56.1)	53.1 (51.2–55.0)	55.6 (53.5–57.7)	55.8 (53.7–57.8)	56.4 (54.4–58.4)	55.0 (53.0–57.0)	53.3 (51.4–55.3)	53.3 (51.4–55.3)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↘ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↔ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

** Indicates that this group differs from that used for analysis in other sections of this chapter, as only chronic conditions were included in this analysis (see Appendix 4, Table A4.2, <hdl.handle.net/2123/15482>). Note: CI – confidence interval; BMI – body mass index; NOS – not otherwise specified. This table includes individual chronic problems that were managed at a rate of ≥ 0.5 per 100 encounters in 2015–16.

8 Overview of management

Over the most recent 10 years of the BEACH program (2006–07 to 2015–16), there have been major changes in how GPs manage patient problems. This chapter provides an overview of the management of problems in general practice. More detailed analyses of the overview of management in 2015–16 can be found in Chapter 8 in *General practice activity in Australia 2015–16*.¹

As discussed in Chapter 2, we can consider changes in GP management actions over time in terms of the number of the selected actions per 100 GP–patient encounters, or in terms of the number of problems managed. If the number of problems managed on average at encounters did not alter, it would not matter which way change was measured.

However, as reported in Chapter 7, there was a significant increase in the number of problems managed at GP–patient encounters over the decade of this study. If we simply compared management actions (for example, number of prescriptions) as a rate per 100 encounters, we would be ignoring the fact that more problems were managed in 2015–16 than in 2006–07. If more problems are managed, more management actions should result, without any change occurring in GP management behaviour.

In this, and the following management chapters, changes over time are reported in two ways:

- rate (of the selected action) per 100 problems managed
- rate (of the selected action) per 100 encounters.

The rate per 100 problems managed gives a clearer idea of how GP management actions have (or have not) changed. The rate per 100 encounters is used as the basis of extrapolation to national estimated change.

The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Examples of extrapolations are provided in each of the specific management chapters (Chapters 9 to 12, inclusive). The method used to extrapolate to national change estimates is described in Section 2.9.

Between 2006–07 and 2015–16, some trends emerged in management actions per 100 problems managed (Table 8.1a), and per 100 encounters (Table 8.1b). The most noticeable changes (from Table 8.1a) are listed below.

- There was a significant decrease in the rate of prescribed medications, from 56.1 per 100 problems managed in 2006–07 to 53.1 per 100 problems in 2015–16.
- The rate of ‘other treatments’, including clinical and procedural treatments, increased significantly, from 30.1 to 36.4 per 100 problems. Individually, both clinical and procedural treatments increased significantly. Clinical treatments increased from 19.9 to 25.0 per 100 problems, and the rate of GP-provided procedures increased from 10.2 to 11.4 per 100 problems over the decade.
- The rate of referrals to other health providers significantly increased, from 8.2 to 10.4 per 100 problems managed between 2006–07 and 2015–16, influenced by a 15% increase in referrals to medical specialists (from 5.4 to 6.2 per 100 problems managed) and a 71% increase in referrals to allied health services over the period (from 2.1 to 3.6 per 100 problems managed). It was further influenced by a marginal increase in referrals to emergency departments (from 0.1 to 0.2 per 100 problems managed).

- The rate at which pathology tests/batteries were ordered significantly increased by 8%, from 28.6 tests/batteries per 100 problems managed in 2006–07, to 30.8 per 100 in 2015–16.
- The rate at which imaging was ordered increased significantly, from 6.0 imaging orders per 100 problems managed in 2006–07, to 7.1 per 100 in 2015–16, a rise of 18%.

Similar changes between 2006–07 and 2015–16 were apparent in the percentage of problems (Table 8.2a), and the percentage of encounters (Table 8.2b), where at least one management type was recorded.

Table 8.2a shows that over the decade 2006–07 to 2015–16, the proportion of problems for which at least one:

- medication was provided decreased significantly (from 54.5% of problems to 51.9%), mainly influenced by a significant decrease in the proportion of problems for which medication was prescribed, from 45.6% to 42.4% over this time
- other treatment was provided increased significantly, from 27.0% to 32.2%, due to significant increases in both the proportion of problems for which at least one clinical treatment was provided (18.1% to 22.5%) and for which at least one procedure was undertaken (9.6% to 10.7%)
- referral was given increased significantly (from 8.3% of problems to 10.3%), particularly to medical specialists (5.5% to 6.2%), and allied health services (2.1% to 3.6%). There was a marginal increase in referrals to emergency departments, from 0.1% to 0.2% of problems
- imaging test was ordered increased from 5.5% to 6.4%
- other investigation was ordered decreased marginally from 0.7% to 0.5%.

Table 8.1a: Summary of management (rate per 100 problems), 2006–07 to 2015–16

Management type	Rate per 100 problems (95% CI)											(a)
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Medications	68.4 (67.0–69.7)	67.9 (66.5–69.2)	68.7 (67.5–70.0)	69.5 (67.9–71.1)	69.0 (67.6–70.3)	69.6 (68.0–71.2)	66.3 (64.9–67.6)	64.9 (63.5–66.2)	66.5 (65.1–67.8)	66.1 (64.8–67.5)	—	
Prescribed	56.1 (54.7–57.4)	54.5 (53.2–55.8)	55.9 (54.5–57.2)	54.4 (52.8–56.0)	55.8 (54.5–57.1)	56.5 (54.9–58.1)	53.8 (52.5–55.1)	52.8 (51.5–54.1)	55.2 (53.8–56.5)	53.1 (51.9–54.4)	↘	
GP-supplied	6.0 (5.5–6.5)	6.7 (6.3–7.1)	7.1 (6.6–7.6)	8.9 (8.3–9.5)	6.8 (6.2–7.3)	6.3 (5.8–6.8)	6.4 (5.9–6.9)	6.5 (6.0–6.9)	5.2 (4.8–5.5)	5.9 (5.4–6.4)	§	
Advised OTC	6.3 (5.8–6.8)	6.7 (6.2–7.2)	5.7 (5.3–6.1)	6.2 (5.7–6.7)	6.4 (5.9–6.9)	6.8 (6.3–7.4)	6.1 (5.5–6.7)	5.6 (5.2–6.1)	6.1 (5.7–6.6)	7.1 (6.6–7.6)	—	
Other treatments	30.1 (28.6–31.5)	33.9 (32.4–35.3)	32.8 (31.5–34.1)	34.3 (32.6–36.0)	34.4 (32.7–36.0)	35.1 (33.5–36.7)	34.9 (33.2–36.5)	35.7 (34.2–37.2)	32.8 (31.3–34.2)	36.4 (34.8–38.1)	↑	
Clinical*	19.9 (18.7–21.1)	22.9 (21.6–24.1)	22.0 (20.8–23.2)	22.9 (21.4–24.4)	23.4 (21.9–24.8)	24.1 (22.7–25.5)	23.7 (22.2–25.1)	23.8 (22.5–25.2)	21.8 (20.6–23.1)	25.0 (23.5–26.5)	↑	
Procedural*	10.2 (9.7–10.7)	11.0 (10.4–11.5)	10.8 (10.3–11.2)	11.4 (10.7–12.1)	11.0 (10.5–11.5)	11.0 (10.5–11.5)	11.2 (10.6–11.7)	11.8 (11.3–12.4)	10.9 (10.5–11.4)	11.4 (10.8–12.1)	↑	
Referrals & admissions	8.2 (7.9–8.6)	8.3 (8.0–8.6)	8.9 (8.6–9.2)	8.7 (8.4–9.0)	9.3 (8.9–9.6)	9.4 (9.1–9.8)	9.5 (9.2–9.9)	9.9 (9.6–10.2)	10.3 (9.9–10.6)	10.4 (10.0–10.8)	↑	
Medical specialist*	5.4 (5.2–5.7)	5.3 (5.1–5.5)	5.8 (5.6–6.0)	5.5 (5.3–5.7)	5.6 (5.4–5.9)	5.6 (5.3–5.8)	5.7 (5.5–6.0)	6.0 (5.8–6.3)	6.2 (5.9–6.4)	6.2 (5.9–6.4)	↑	
Allied health services*	2.1 (1.9–2.2)	2.3 (2.1–2.4)	2.5 (2.3–2.7)	2.6 (2.4–2.7)	2.8 (2.6–2.9)	3.0 (2.8–3.2)	3.0 (2.8–3.2)	3.1 (2.9–3.3)	3.3 (3.1–3.5)	3.6 (3.4–3.9)	↑	
Hospital*	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	—	
Emergency department*	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	↑	
Other referrals*	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	—	

(continued)

Table 8.1a (continued): Summary of management (rate per 100 problems), 2006–07 to 2015–16

Management type	Rate per 100 problems (95% CI)											2015–16 (n = 150,279)	↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)		
Pathology	28.6 (27.5–29.6)	28.5 (27.4–29.6)	29.5 (28.4–30.5)	29.3 (28.2–30.4)	29.6 (28.6–30.7)	30.6 (29.3–31.8)	30.4 (29.3–31.5)	31.0 (30.0–32.1)	30.3 (29.3–31.4)	30.8 (29.7–32.0)	30.8 (29.7–32.0)	↑	
Imaging	6.0 (5.8–6.3)	6.3 (6.1–6.5)	6.3 (6.1–6.6)	6.4 (6.1–6.6)	6.4 (6.1–6.7)	6.6 (6.3–6.8)	6.7 (6.4–6.9)	6.9 (6.6–7.2)	7.4 (7.1–7.7)	7.1 (6.9–7.4)	7.1 (6.9–7.4)	↑	
Other investigations	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	↓	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; OTC – over-the-counter.

Table 8.1b: Summary of management (rate per 100 encounters), 2006–07 to 2015–16

Management type	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑↓ ^(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)	
Medications	101.5 (99.2–103.9)	102.7 (100.3–105.0)	106.3 (104.0–108.5)	106.6 (103.6–109.5)	105.2 (102.8–107.6)	107.0 (104.1–110.0)	102.5 (100.2–104.9)	102.6 (100.1–105.2)	103.1 (100.6–105.6)	102.1 (99.6–104.5)	102.1 (99.6–104.5)	—
Prescribed	83.3 (81.0–85.5)	82.4 (80.3–84.6)	86.4 (84.1–88.6)	83.4 (80.6–86.2)	85.1 (82.9–87.3)	86.8 (84.0–89.7)	83.3 (81.0–85.5)	83.5 (81.2–85.8)	85.5 (83.1–88.0)	82.0 (79.8–84.2)	82.0 (79.8–84.2)	—
GP-supplied	8.9 (8.2–9.6)	10.1 (9.5–10.7)	11.0 (10.2–11.8)	13.6 (12.7–14.6)	10.3 (9.5–11.2)	9.7 (8.9–10.5)	9.9 (9.1–10.7)	10.2 (9.4–11.0)	8.0 (7.4–8.6)	9.1 (8.3–9.9)	9.1 (8.3–9.9)	§
Advised OTC	9.4 (8.7–10.1)	10.1 (9.3–10.9)	8.9 (8.3–9.4)	9.5 (8.7–10.3)	9.8 (9.0–10.5)	10.5 (9.7–11.3)	9.4 (8.4–10.3)	8.9 (8.2–9.6)	9.5 (8.8–10.2)	10.9 (10.1–11.8)	10.9 (10.1–11.8)	↑
Other treatments	44.7 (42.3–47.0)	51.2 (48.9–53.6)	50.7 (48.5–52.9)	52.5 (49.8–55.3)	52.4 (49.8–55.1)	53.9 (51.2–56.6)	53.9 (51.2–56.7)	56.4 (53.8–59.0)	50.9 (48.4–53.3)	56.2 (53.4–59.0)	56.2 (53.4–59.0)	↑
Clinical*	29.6 (27.7–31.5)	34.6 (32.6–36.6)	34.1 (32.1–36.0)	35.1 (32.6–37.5)	35.6 (33.3–38.0)	37.1 (34.7–39.4)	36.6 (34.3–39.0)	37.7 (35.4–40.0)	33.9 (31.8–36.0)	38.6 (36.1–41.0)	38.6 (36.1–41.0)	↑
Procedural*	15.1 (14.3–15.9)	16.6 (15.8–17.5)	16.7 (16.0–17.4)	17.5 (16.4–18.5)	16.8 (16.0–17.7)	16.8 (16.0–17.7)	17.3 (16.4–18.2)	18.7 (17.9–19.6)	17.0 (16.2–17.8)	17.6 (16.6–18.7)	17.6 (16.6–18.7)	↑
Referrals & admissions	12.2 (11.7–12.7)	12.5 (12.0–13.0)	13.7 (13.2–14.2)	13.3 (12.8–13.8)	14.1 (13.5–14.7)	14.5 (13.9–15.1)	14.8 (14.2–15.4)	15.7 (15.1–16.3)	15.9 (15.3–16.5)	16.1 (15.4–16.7)	16.1 (15.4–16.7)	↑
Medical specialist*	8.0 (7.7–8.4)	8.0 (7.6–8.3)	9.0 (8.7–9.3)	8.4 (8.1–8.8)	8.6 (8.2–9.0)	8.6 (8.2–8.9)	8.9 (8.5–9.3)	9.5 (9.1–9.9)	9.6 (9.2–10.0)	9.5 (9.1–9.9)	9.5 (9.1–9.9)	↑
Allied health services*	3.1 (2.9–3.3)	3.4 (3.2–3.7)	3.9 (3.6–4.1)	3.9 (3.7–4.2)	4.2 (3.9–4.5)	4.7 (4.4–5.0)	4.7 (4.4–5.0)	4.9 (4.6–5.2)	5.2 (4.9–5.5)	5.6 (5.2–6.0)	5.6 (5.2–6.0)	↑
Hospital*	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	—
Emergency department*	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↑
Other referrals*	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.3 (0.2–0.4)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	—

(continued)

Table 8.1b (continued): Summary of management (rate per 100 encounters), 2006–07 to 2015–16

Management type	Rate per 100 encounters (95% CI)										(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	
Pathology	42.4 (40.7–44.2)	43.1 (41.3–45.0)	45.6 (43.8–47.4)	45.0 (43.1–46.9)	45.2 (43.4–47.0)	47.0 (44.9–49.1)	47.1 (45.1–49.0)	49.1 (47.1–51.0)	47.0 (45.2–48.9)	47.6 (45.5–49.6)	↑ ↓
Imaging	9.0 (8.6–9.3)	9.5 (9.2–9.9)	9.8 (9.4–10.2)	9.7 (9.3–10.1)	9.8 (9.4–10.2)	10.1 (9.6–10.5)	10.3 (9.9–10.8)	10.9 (10.5–11.4)	11.5 (11.0–11.9)	11.0 (10.6–11.5)	↑
Other investigations	1.1 (0.9–1.2)	1.0 (0.8–1.1)	1.0 (0.9–1.1)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.9 (0.8–0.9)	↓

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗/↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

* Includes multiple ICP-C-2 or ICP-C-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; OTC – over-the-counter.

Table 8.2a: Problems for which at least one management action was recorded (per cent of problems), 2006–07 to 2015–16

At least one ...	Per cent of problems (95% CI)											↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Management type	85.3 (84.6–85.9)	86.3 (85.6–86.9)	86.3 (85.6–86.9)	85.8 (85.1–86.4)	85.9 (85.3–86.5)	86.8 (86.1–87.4)	85.1 (84.3–85.9)	85.1 (84.4–85.8)	85.0 (84.4–85.7)	86.0 (85.4–86.7)	—	
Medication or other treatment	71.8 (70.9–72.6)	73.2 (72.4–74.1)	72.9 (72.1–73.7)	72.8 (71.9–73.7)	72.4 (71.5–73.3)	73.4 (72.6–74.3)	71.2 (70.3–72.2)	70.9 (70.0–71.7)	70.5 (69.6–71.4)	71.8 (70.9–72.7)	—	
Medication	54.5 (53.5–55.5)	54.1 (53.1–55.1)	54.3 (53.4–55.3)	54.2 (53.2–55.1)	54.0 (53.1–55.0)	54.8 (53.8–55.8)	52.2 (51.3–53.2)	50.7 (49.8–51.6)	51.8 (50.9–52.8)	51.9 (51.0–52.8)	↘	
Prescription	45.6 (44.6–46.6)	44.4 (43.5–45.4)	44.9 (43.9–45.8)	43.2 (42.1–44.3)	44.7 (43.7–45.6)	45.4 (44.3–46.5)	43.3 (42.3–44.3)	41.8 (40.8–42.7)	43.8 (42.8–44.8)	42.4 (41.5–43.3)	↘	
GP-supplied	4.7 (4.3–5.1)	5.3 (5.0–5.7)	5.7 (5.3–6.1)	7.2 (6.7–7.7)	5.4 (5.0–5.8)	5.0 (4.7–5.4)	5.1 (4.8–5.5)	5.4 (5.0–5.8)	4.1 (3.8–4.4)	4.9 (4.5–5.4)	§	
Advised OTC	5.8 (5.4–6.2)	6.1 (5.6–6.5)	5.3 (4.9–5.6)	5.6 (5.1–6.0)	5.8 (5.4–6.2)	6.2 (5.7–6.7)	5.5 (5.0–6.0)	5.1 (4.7–5.4)	5.5 (5.1–5.9)	6.2 (5.8–6.7)	—	
Other treatment	27.0 (25.8–28.2)	30.2 (29.1–31.4)	29.3 (28.2–30.4)	30.3 (29.0–31.7)	30.4 (29.1–31.7)	30.7 (29.4–31.9)	30.6 (29.3–31.9)	31.6 (30.4–32.8)	29.4 (28.2–30.6)	32.2 (30.8–33.5)	↑	
Clinical*	18.1 (17.0–19.1)	20.7 (19.6–21.7)	20.0 (19.0–21.0)	20.6 (19.4–21.8)	20.9 (19.7–22.2)	21.4 (20.2–22.6)	21.1 (19.9–22.3)	21.4 (20.3–22.6)	19.9 (18.8–21.0)	22.5 (21.2–23.7)	↑	
Procedural*	9.6 (9.1–10.1)	10.3 (9.8–10.8)	10.1 (9.7–10.5)	10.6 (10.0–11.2)	10.3 (9.9–10.8)	10.2 (9.8–10.7)	10.5 (10.0–11.0)	11.1 (10.7–11.6)	10.3 (9.9–10.8)	10.7 (10.2–11.2)	↑	
Referrals & admissions	8.3 (8.0–8.6)	8.3 (8.0–8.6)	8.9 (8.5–9.2)	8.7 (8.4–9.0)	9.2 (8.9–9.5)	9.3 (9.0–9.7)	9.5 (9.1–9.8)	9.8 (9.5–10.2)	10.2 (9.8–10.5)	10.3 (10.0–10.7)	↑	
Medical specialist*	5.5 (5.3–5.8)	5.3 (5.1–5.5)	5.9 (5.7–6.1)	5.6 (5.4–5.8)	5.7 (5.5–5.9)	5.6 (5.4–5.9)	5.8 (5.5–6.1)	6.1 (5.9–6.3)	6.3 (6.0–6.5)	6.2 (6.0–6.5)	↑	
Allied health services*	2.1 (1.9–2.2)	2.3 (2.2–2.4)	2.5 (2.4–2.7)	2.6 (2.4–2.7)	2.7 (2.6–2.9)	3.0 (2.8–3.2)	3.0 (2.8–3.2)	3.1 (2.9–3.3)	3.3 (3.1–3.5)	3.6 (3.4–3.8)	↑	
Hospital*	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	—	

(continued)

Table 8.2a (continued): Problems for which at least one management action was recorded (per cent of problems), 2006–07 to 2015–16

At least one ...	Per cent of problems (95% CI)										2015–16 (n = 150,279) ↑ ^(a) ↓	
	2006–07 (n = 136,133)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Emergency department*	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	↑
Other referrals*	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↓
Investigation	18.2 (17.7–18.7)	18.1 (17.6–18.6)	18.5 (18.0–19.0)	18.1 (17.6–18.6)	18.2 (17.7–18.7)	18.6 (18.1–19.2)	18.6 (18.1–19.2)	19.1 (18.6–19.6)	19.0 (18.5–19.5)	19.2 (18.6–19.7)	19.2 (18.6–19.7)	—
Pathology order	13.4 (13.0–13.9)	13.1 (12.7–13.6)	13.6 (13.2–14.0)	13.2 (12.8–13.7)	13.3 (12.9–13.7)	13.6 (13.1–14.1)	13.5 (13.1–14.0)	13.9 (13.5–14.3)	13.4 (13.0–13.8)	13.7 (13.2–14.1)	13.7 (13.2–14.1)	—
Imaging order	5.5 (5.3–5.7)	5.7 (5.4–5.9)	5.7 (5.4–5.9)	5.7 (5.5–6.0)	5.7 (5.5–5.9)	5.8 (5.6–6.1)	5.9 (5.7–6.2)	6.1 (5.9–6.4)	6.6 (6.3–6.8)	6.4 (6.1–6.6)	6.4 (6.1–6.6)	↑
Other investigation	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↓

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

* Includes multiple ICP-2 or ICP-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; OTC – over-the-counter.

Table 8.2b: Proportion of total encounters at which at least one management action was recorded (per cent of encounters), 2006–07 to 2015–16

At least one...	Per cent of encounters (95% CI)											2015–16 (n = 97,398)	↑ ↓ ^(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Management type	90.4 (89.8–91.0)	91.9 (91.3–92.4)	92.2 (91.7–92.7)	91.3 (90.7–91.9)	91.5 (90.8–92.1)	91.9 (91.3–92.5)	90.7 (90.1–91.3)	91.3 (90.7–92.0)	90.8 (90.2–91.4)	91.6 (90.9–92.2)	91.6 (90.9–92.2)	—	
Medication or other treatment	79.9 (79.1–80.8)	82.2 (81.4–82.9)	82.4 (81.7–83.1)	81.6 (80.8–82.4)	81.4 (80.5–82.3)	81.9 (81.1–82.8)	80.5 (79.6–81.3)	80.9 (80.1–81.8)	79.8 (78.8–80.7)	81.0 (80.1–81.9)	81.0 (80.1–81.9)	—	
Medication	63.9 (63.0–64.9)	64.4 (63.4–65.3)	65.1 (64.3–65.9)	64.6 (63.6–65.5)	64.7 (63.8–65.6)	65.1 (64.2–66.0)	62.8 (61.9–63.7)	62.1 (61.2–63.0)	62.3 (61.4–63.3)	62.7 (61.8–63.6)	62.7 (61.8–63.6)	—	
Prescription	54.1 (53.2–55.1)	53.6 (52.6–54.5)	54.6 (53.7–55.5)	52.4 (51.3–53.4)	54.3 (53.3–55.2)	54.5 (53.5–55.5)	52.8 (51.8–53.7)	52.1 (51.2–53.1)	53.1 (52.1–54.0)	51.9 (51.0–52.8)	51.9 (51.0–52.8)	↓	
GP-supplied	6.8 (6.3–7.3)	7.9 (7.4–8.4)	8.5 (7.9–9.1)	10.5 (9.8–11.2)	8.0 (7.4–8.6)	7.4 (6.9–7.9)	7.7 (7.1–8.2)	8.3 (7.6–9.0)	6.1 (5.7–6.6)	7.4 (6.7–8.0)	7.4 (6.7–8.0)	§	
Advised OTC	8.4 (7.8–8.9)	8.9 (8.3–9.6)	8.0 (7.5–8.5)	8.3 (7.6–8.9)	8.6 (8.0–9.2)	9.3 (8.9–9.9)	8.2 (7.5–9.0)	7.8 (7.2–8.4)	8.3 (7.7–8.9)	9.3 (8.7–9.9)	9.3 (8.7–9.9)	—	
Other treatment	35.3 (33.8–36.9)	39.9 (38.3–41.4)	39.6 (38.3–41.0)	40.3 (38.5–42.0)	40.1 (38.4–41.7)	40.5 (38.9–42.1)	40.7 (39.0–42.3)	42.6 (41.0–44.2)	39.4 (37.8–41.0)	42.3 (40.6–43.9)	42.3 (40.6–43.9)	↑	
Clinical*	23.9 (22.5–25.3)	27.6 (26.1–29.0)	27.4 (26.0–28.7)	27.7 (26.1–29.3)	28.0 (26.4–29.6)	28.5 (27.0–30.1)	28.4 (26.8–30.0)	29.4 (27.9–30.9)	26.9 (25.4–28.3)	29.9 (28.3–31.5)	29.9 (28.3–31.5)	↑	
Procedural*	13.8 (13.1–14.4)	15.0 (14.3–15.7)	15.0 (14.4–15.6)	15.6 (14.7–16.5)	15.0 (14.3–15.7)	15.1 (14.4–15.8)	15.5 (14.8–16.2)	16.7 (16.0–17.4)	15.4 (14.7–16.0)	15.8 (15.0–16.5)	15.8 (15.0–16.5)	↑	
Referrals & admissions	11.5 (11.0–11.9)	11.8 (11.3–12.2)	12.8 (12.3–13.2)	12.4 (11.9–12.9)	13.0 (12.5–13.5)	13.3 (12.8–13.8)	13.5 (13.0–14.1)	14.4 (13.9–14.9)	14.5 (14.0–15.1)	14.7 (14.1–15.3)	14.7 (14.1–15.3)	↑	
Medical specialist*	7.7 (7.4–8.0)	7.7 (7.4–8.0)	8.6 (8.3–8.9)	8.1 (7.7–8.5)	8.2 (7.9–8.6)	8.2 (7.9–8.5)	8.5 (8.1–8.9)	9.1 (8.7–9.4)	9.1 (8.7–9.5)	9.1 (8.7–9.4)	9.1 (8.7–9.4)	↑	
Allied health services*	3.0 (2.8–3.1)	3.3 (3.1–3.5)	3.7 (3.5–3.9)	3.7 (3.5–3.9)	3.9 (3.7–4.2)	4.3 (4.1–4.6)	4.3 (4.1–4.6)	4.6 (4.4–4.9)	4.8 (4.5–5.1)	5.2 (4.8–5.5)	5.2 (4.8–5.5)	↑	
Hospital*	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	—	

(continued)

Table 8.2b (continued): Proportion of total encounters at which at least one management action was recorded (per cent of encounters), 2006–07 to 2015–16

At least one ...	Per cent of encounters (95% CI)										2015–16 (n = 97,398)	↑ ↓ ^(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Emergency department*	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↑
Other referrals*	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.3 (0.2–0.4)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	↓
Investigation	23.5 (22.8–24.2)	23.8 (23.1–24.5)	24.6 (23.9–25.3)	24.2 (23.5–24.9)	24.1 (23.4–24.8)	24.7 (24.0–25.4)	24.7 (24.0–25.5)	26.1 (25.3–26.8)	25.4 (24.7–26.1)	25.6 (24.9–26.3)	25.6 (24.9–26.3)	↑
Pathology order	17.4 (16.8–18.0)	17.4 (16.7–18.0)	18.2 (17.6–18.8)	17.7 (17.1–18.3)	17.8 (17.2–18.4)	18.1 (17.4–18.7)	18.1 (17.4–18.7)	19.1 (18.4–19.7)	18.1 (17.5–18.7)	18.4 (17.8–19.0)	18.4 (17.8–19.0)	—
Imaging order	7.9 (7.6–8.2)	8.3 (8.0–8.6)	8.5 (8.1–8.8)	8.5 (8.2–8.9)	8.4 (8.0–8.7)	8.6 (8.3–9.0)	8.8 (8.4–9.2)	9.3 (9.0–9.7)	9.8 (9.4–10.1)	9.4 (9.1–9.8)	9.4 (9.1–9.8)	↑
Other investigation	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↓

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; OTC – over-the-counter.

9 Medications

This chapter summarises the medications prescribed, advised or supplied by general practitioners in each year of the BEACH study from 2006–07 to 2015–16. The direction and type of change over the study period is indicated for each result in the far right column of the tables: \uparrow/\downarrow indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; \uparrow/\downarrow indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Significant change in the rate per 100 encounters can be extrapolated to estimate the national increase or decrease in the number of prescribed, supplied, or advised medications between the first and last years of the study period. Some examples of extrapolated changes are given in this chapter. The method used to extrapolate to national change estimates is described fully in Section 2.9. In 2015–16, there were 39.6 million more encounters claimed through Medicare than there were in 2006–07 (143.0 million versus 103.4 million). It should be noted that because of this increase, it is possible that a significant decrease in a medication rate per 100 encounters can still result in an increase in the extrapolated national estimates of that medication over time.

GPs could record up to four medications for each of four problems – a maximum of 16 medications per encounter. Each medication could be recorded as prescribed (the default), supplied by the GP, or recommended for over-the-counter (OTC) purchase. More detailed analyses of medication recorded in BEACH in 2015–16 can be found in Chapter 9 of *General practice activity in Australia 2015–16*.¹

Medication data for the 10 years 2006–07 to 2015–16, are reported in two ways in this chapter: as rates per 100 problems managed and as rates per 100 encounters. In describing data over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase in the number of problems managed per encounter over the decade (see Chapter 7).

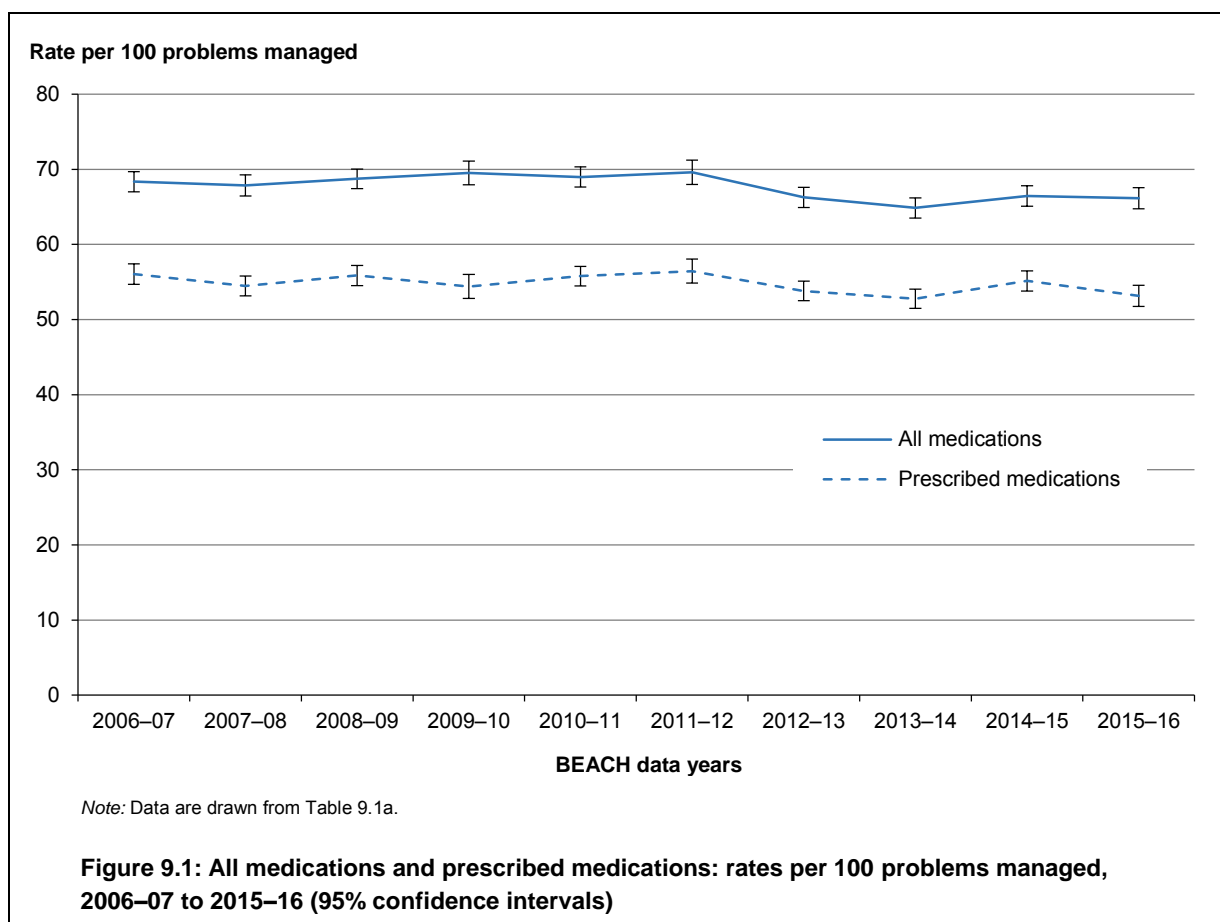
The tables with rates per 100 encounters are included to show the basis for the extrapolations discussed above. On the other hand, changes discussed in the examples below are per 100 problems managed and are taken from results shown in the ‘a’ tables (Tables 9.1a, 9.2a, 9.3a, 9.4a, 9.5a and 9.6a). The extrapolations are based on rate per 100 encounters so that they are equivalent to the national encounter data from Medicare. They therefore rely on results shown in the ‘b’ tables (Tables 9.1b, 9.2b, 9.3b, 9.4b, 9.5b and 9.6b).

Overall, there was no significant change in the rate of total medications (prescribed, supplied or advised) per 100 problems managed or per 100 encounters between 2006–07 and 2015–16 (Tables 9.1a and 9.1b).

Figure 9.1 and Table 9.1a show that between 2006–07 and 2015–16, there was a significant decrease in prescribed medication rates per 100 problems managed. Table 9.1b shows this change was not significant per 100 encounters.

GP-supplied medications showed no significant change per 100 problems managed or per 100 encounters between the years 2006–07 and 2015–16, but there were fluctuations over the decade. A noteworthy increase was seen in 2008–09 and 2009–10, and a decrease was seen in 2014–15 (Tables 9.1a and 9.1b).

The rates at which GPs advised medications for OTC purchase remained stable over the decade as a rate per 100 problems managed, but a marginal increase was observed per 100 encounters (Tables 9.1a and 9.1b).



9.1 Prescribed medications

The rate at which medications were prescribed per 100 problems managed decreased significantly from 2006-07 (56.1 per 100 problems) to 2015-16 (53.1 per 100) (Table 9.1a). There was no significant change per 100 encounters (Table 9.1b). However, the extrapolated national effect of the increased number of encounters (described above) resulted in an estimated 31.1 million more prescriptions being given nationally by GPs in 2015-16 than in 2006-07.

Tables 9.2a and 9.2b show prescribing rates of common drug groups over the 10-year period at ATC drug group Level 2, because this level is more consistent over time than the lower ATC levels. There were significant changes in GP prescribing rates per 100 problems managed for a wide range of drug groups (Table 9.2a). In particular, there were measured increases in the prescription rate of:

- psychoanaleptics (the group includes antidepressants, psychostimulants and antidementia drugs), from 2.3 per 100 problems managed in 2006-07 to 2.8 in 2015-16. The extrapolated national effect of this change (calculated from the encounter rate from Table 9.2b) was about 2.7 million more prescriptions for drugs in this group given in 2015-16 than in 2006-07
- drugs for acid-related digestive disorders, from 2.0 per 100 problems in 2006-07 to 2.4 in 2015-16. The extrapolated national effect of this change was that about 2.2 million more prescriptions for drugs in this group were given in 2015-16 than in 2006-07
- corticosteroids for systemic use, from 0.9 per 100 problems in 2006-07 to 1.2 in 2015-16, an estimated 1.4 million more prescriptions nationally in 2015-16 than in 2006-07
- antiepileptics, from 0.4 per 100 problems in 2006-07 to 0.8 in 2015-16, with an extrapolated effect of 1.3 million more prescriptions nationally in 2015-16.

There were also significant decreases in the prescribing rate per 100 problems managed for several drug groups. With the increase in number of Medicare encounters, the majority of estimates extrapolated from decreased medication rates represent a national increase in total prescriptions. As shown in Table 9.2a, significant decreases in the prescription rate per 100 problems were measured for:

- antibacterials for systemic use, from 9.4 per 100 problems managed in 2006–07 to 8.3 in 2015–16, but the extrapolated national effect of this change (calculated on the encounter rate from Table 9.2b) was that about 3.8 million more prescriptions for drugs in this group were given in 2015–16 than in 2006–07, due to the increase in encounter numbers nationally
- agents acting on the renin-angiotensin system, from 4.4 per 100 problems managed in 2006–07 to 3.8 per 100 in 2015–16, but the estimated national effect of this change was 1.8 million more of these drugs prescribed over the decade due to the increase in encounter numbers
- drugs for obstructive airway disease, from 2.5 per 100 problems managed in 2006–07 to 2.2 in 2015–16, with an estimated national effect of about 940,000 more prescriptions for drugs in this group given in 2015–16 than in 2006–07
- anti-inflammatory and antirheumatic products, from 2.4 per 100 problems in 2006–07 to 2.0 in 2015–16, with an extrapolated national effect of about 570,000 more prescriptions for these products nationally in 2015–16 than in 2006–07
- sex hormones and modulators of the genital system, from 2.0 per 100 problems in 2006–07 to 1.5 in 2015–16, which led to an extrapolated national effect of about 190,000 more prescriptions for this drug group nationally in 2015–16 than in 2006–07
- beta blocking agents, from 1.2 per 100 problems in 2006–07 to 1.0 in 2015–16, leading to an extrapolated national effect of about 280,000 more prescriptions for them nationally in 2015–16 than in 2006–07
- calcium channel blockers, from 1.4 per 100 problems in 2006–07 to 0.9 in 2015–16, leading to an extrapolated national effect of about 170,000 fewer prescriptions for them nationally in 2015–16 than in 2006–07
- ophthalmologicals, from 1.2 per 100 problems in 2006–07 to 0.8 in 2015–16, but resulted in an estimated increase of 100,000 prescriptions nationally in 2015–16 than in 2006–07
- diuretics, from 0.9 per 100 problems in 2006–07 to 0.6 in 2015–16, an estimated decrease of 160,000 fewer prescriptions given nationally in 2015–16 than in 2006–07.

Some of the changes referred to here can be linked to changes in the patterns of morbidity managed. For example, the rise in psychoanaleptics coincides with the significant increase in management rates of depression. Other changes coincide with policy initiatives, such as the rise in rates of antiepileptic agents, which accelerated in 2013–14 when a new indication for subsidised access to one of these medications was added to the Pharmaceutical Benefits Scheme (PBS).

Decreases in prescribing rates of drug groups can sometimes be linked to medications within the group becoming available over-the-counter (for example, salbutamol); becoming more likely to be supplied directly to the patient by the GP (for example, vaccines); or being included in combination medication products (for example, cardiovascular agents such as diuretics). The decrease in systemic antibacterials over the decade may be linked to improving public awareness of the negative effects of antibiotic overuse.

When no statistically significant change occurs in a prescribing rate per 100 problems managed, or in rate per 100 encounters, there may still be a national increase due to the increased GP attendance rates. An example of this is the prescribing of analgesics, the rate of which did not change significantly over the study period. However, we estimate that due to the increase in GP attendances, about 3.7 million more analgesics were prescribed in 2015–16 than in 2006–07.

Tables 9.3a and 9.3b show prescribed medication rates at the individual generic level. The same effect of the increased number of Medicare encounters over time applies to these individual drugs. There was a significant increase in the prescribing rate per 100 problems for a number of drugs, including:

- the proton pump inhibitor esomeprazole, which rose from 0.7 per 100 problems in 2006–07 to 1.2 per 100 in 2015–16, with an extrapolated national effect of 1.5 million more esomeprazole prescriptions given in 2015–16 than in 2006–07 (calculated from the encounter rate in Table 9.3b)
- the opioid oxycodone, which increased from 0.6 per 100 problems managed in 2006–07 to 0.9 in 2015–16, with an extrapolated national effect of about 1.2 million more prescriptions for oxycodone nationally in 2015–16 than 10 years earlier
- the lipid modifying agent rosuvastatin, first listed on the PBS in December 2006, rose from less than 0.05 per 100 problems in 2006–07 to 0.9 per 100 in 2015–16, an estimated 1.8 million more prescriptions than in 2006–07
- another proton pump inhibitor, pantoprazole, rose from 0.3 per 100 problems in 2006–07 to 0.5 in 2015–16, an extrapolated increase of 620,000 more pantoprazole prescriptions between the two study points
- oral tablets of the corticosteroid prednisolone, which rose significantly from 0.4 per 100 problems managed in 2006–07 to 0.5 in 2015–16, with an estimated increase of 520,000 nationally
- the antiepileptic pregabalin, which was first listed in 2005 as an antiepileptic and in 2012 as a treatment for refractory neuropathic pain, rose from 0.0 to 0.5 per 100 problems, an estimated 1.1 million more prescriptions in 2015–16 than 10 years earlier. There were an estimated 940,000 more prescriptions for pregabalin in 2015–16 than in 2012–13.

In 2015–16, a large number of medications were prescribed less frequently than in 2006–07, some decreases being associated with low-cost over-the-counter availability, particularly from supermarkets (for example, paracetamol); or becoming part of combination medications (for example, irbesartan). Some of the decreases observed in the prescription rate per 100 problems were for:

- plain paracetamol, from 1.7 per 100 problems in 2006–07 to 1.1 per 100 problems in 2015–16, with an extrapolated national effect of about 260,000 fewer prescriptions for this medication nationally in 2015–16 than in 2006–07
- paracetamol in combinations with codeine, from 1.3 per 100 problems in 2006–07 to 1.0 per 100 problems in 2015–16, with this decrease showing an extrapolated national effect of about 77,000 more prescriptions for these products nationally in 2015–16 than in 2006–07 (due to the increase in attendances)
- the hypnotic drug, temazepam, from 0.7 per 100 problems to 0.6, giving an extrapolated national increase of 150,000 prescriptions between 2006–07 and 2015–16
- the antibiotic macrolide, roxithromycin, from 0.9 to 0.5 per 100 problems, a decrease of 300,000 prescriptions over the decade
- the angiotensin II antagonist irbesartan, from 0.7 per 100 problems in 2006–07 to 0.4 in 2015–16, suggesting 30,000 fewer prescriptions nationally for irbesartan as a single agent in 2015–16 than in 2006–07.

Number of repeats ordered

The pattern of the number of repeat prescriptions recorded by GPs changed between 2006–07 and 2015–16 (Table 9.4). There was a significant decrease in the proportion of prescribed medications with one, three or four repeats ordered. On the other hand, there was a significant increase in the proportion for which five repeats were recorded. The proportion of prescriptions given with five repeats increased from 33.0% in 2006–07 to 36.1% in 2015–16.

9.2 Medications supplied by GPs

The rate of total GP-supplied medications per 100 problems managed showed no measurable change in 2015–16 compared with 2006–07 (Table 9.5a). The peak in 2009–10 and ebb in 2014–15 reflect: the high rate of influenza virus vaccine supplied in 2009–10 at the time of the H1N1 influenza pandemic, and the delay in availability of influenza vaccine in 2015.

Table 9.5a shows rates per 100 problems managed of individual medications most frequently supplied by GPs between 2006–07 and 2015–16. Nine of the top 10 were vaccines, and rates of most childhood vaccines increased significantly. The peak in supply of influenza virus vaccine can be seen in 2009–10. There was also a significant decrease from 2013–14 to 2014–15 associated with the delay in supply of influenza vaccine in 2015 (late April instead of early March) causing the peak flu vaccination period to fall in the following study period. The significant decrease in immunisation as a problem managed in 2014–15 (Chapter 7) was also influenced by the change in influenza vaccination rate that year. The other change in GP-supplied medications was the rate of supply of vitamin B12, which increased significantly.

9.3 Medications advised for over-the-counter purchase

Table 9.6a shows the 10 medications most frequently advised for OTC purchase. There was no change in the rate per 100 problems managed for total advised OTC medications. However, significant increases were noted in advice for use of ibuprofen and vitamin D3 (cholecalciferol).

Table 9.1a: Rates of medications prescribed, supplied and advised for over-the-counter purchase (rate per 100 problems), 2006–07 to 2015–16

Medications	Rate per 100 problems (95% CI)											2015–16 ↑(a) ↓
	2006–07 (n = 136,133)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Prescribed	56.1 (54.7–57.4)	54.5 (53.2–55.8)	55.9 (54.5–57.2)	54.4 (52.8–56.0)	55.8 (54.5–57.1)	56.5 (54.9–58.1)	53.8 (52.5–55.1)	52.8 (51.5–54.1)	55.2 (53.8–56.5)	53.1 (51.9–54.4)	↓	
GP-supplied	6.0 (5.5–6.5)	6.7 (6.3–7.1)	7.1 (6.6–7.6)	8.9 (8.3–9.5)	6.8 (6.2–7.3)	6.3 (5.8–6.8)	6.4 (5.9–6.9)	6.5 (6.0–6.9)	5.2 (4.8–5.5)	5.9 (5.4–6.4)	§	
Advised OTC	6.3 (5.8–6.8)	6.7 (6.2–7.2)	5.7 (5.3–6.1)	6.2 (5.7–6.7)	6.4 (5.9–6.9)	6.8 (6.3–7.4)	6.1 (5.5–6.7)	5.6 (5.2–6.1)	6.1 (5.7–6.6)	7.1 (6.6–7.6)	—	
Total medications	68.4 (67.0–69.7)	67.9 (66.5–69.2)	68.7 (67.5–70.0)	69.5 (67.9–71.1)	69.0 (67.6–70.3)	69.6 (68.0–71.2)	66.3 (64.9–67.6)	64.9 (63.5–66.2)	66.5 (65.1–67.8)	66.1 (64.8–67.5)	—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Note: CI – confidence interval; OTC – over-the-counter.

Table 9.1b: Rates of medications prescribed, supplied and advised for over-the-counter purchase (rate per 100 encounters), 2006–07 to 2015–16

Medications	Rate per 100 encounters (95% CI)											2015–16 ↑(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Prescribed	83.3 (81.0–85.5)	82.4 (80.3–84.6)	86.4 (84.1–88.6)	83.4 (80.6–86.2)	85.1 (82.9–87.3)	86.8 (84.0–89.7)	83.3 (81.0–85.5)	83.5 (81.2–85.8)	85.5 (83.1–88.0)	82.0 (79.8–84.2)	—	
GP-supplied	8.9 (8.2–9.6)	10.1 (9.5–10.7)	11.0 (10.2–11.8)	13.6 (12.7–14.6)	10.3 (9.5–11.2)	9.7 (8.9–10.5)	9.9 (9.1–10.7)	10.2 (9.4–11.0)	8.0 (7.4–8.6)	9.1 (8.3–9.9)	§	
Advised OTC	9.4 (8.7–10.1)	10.1 (9.3–10.9)	8.9 (8.3–9.4)	9.5 (8.7–10.3)	9.8 (9.0–10.5)	10.5 (9.7–11.3)	9.4 (8.4–10.3)	8.9 (8.2–9.6)	9.5 (8.8–10.2)	10.9 (10.1–11.8)	↑	
Total medications	101.5 (99.2–103.9)	102.7 (100.3–105.0)	106.3 (104.0–108.5)	106.6 (103.6–109.5)	105.2 (102.8–107.6)	107.0 (104.1–110.0)	102.5 (100.2–104.9)	102.6 (100.1–105.2)	103.1 (100.6–105.6)	102.1 (99.6–104.5)	—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Note: CI – confidence interval; OTC – over-the-counter.

Table 9.2a: Prescribed medications by ATC level 2 (rate per 100 problems), 2006–07 to 2015–16

ATC level 2	Rate per 100 problems (95% CI)											↑ ^(a) ↓
	2006–07 (n = 136,133)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Antibacterials for systemic use	9.4 (9.0–9.8)	9.1 (8.7–9.5)	9.4 (9.1–9.8)	9.1 (8.7–9.5)	9.5 (9.1–9.9)	9.3 (8.9–9.7)	8.9 (8.5–9.3)	8.0 (7.6–8.4)	8.7 (8.3–9.1)	8.3 (7.9–8.7)	↓	
Analgesics	5.4 (5.1–5.7)	5.2 (5.0–5.5)	5.1 (4.9–5.4)	5.4 (5.1–5.7)	5.6 (5.4–5.9)	6.0 (5.7–6.3)	5.7 (5.4–6.0)	5.7 (5.4–6.0)	6.0 (5.7–6.4)	5.5 (5.2–5.8)	–	
Agents acting on the renin-angiotensin system	4.4 (4.2–4.6)	4.4 (4.1–4.6)	4.6 (4.3–4.8)	4.2 (4.0–4.5)	4.3 (4.1–4.5)	4.5 (4.2–4.7)	4.2 (4.0–4.4)	4.1 (3.8–4.3)	4.0 (3.8–4.2)	3.8 (3.6–4.0)	↓	
Psycholeptics	3.3 (3.1–3.5)	3.1 (2.9–3.3)	3.2 (3.0–3.4)	2.8 (2.6–3.0)	3.0 (2.8–3.1)	3.0 (2.8–3.2)	3.0 (2.8–3.3)	2.9 (2.8–3.1)	3.1 (2.9–3.3)	2.9 (2.7–3.1)	↓	
Psychoanaesthetics	2.3 (2.2–2.5)	2.3 (2.2–2.4)	2.4 (2.3–2.5)	2.5 (2.4–2.7)	2.6 (2.5–2.8)	2.7 (2.6–2.9)	2.6 (2.5–2.8)	2.7 (2.6–2.8)	3.0 (2.9–3.2)	2.8 (2.7–3.0)	↑	
Lipid modifying agents	2.3 (2.2–2.5)	2.5 (2.3–2.6)	2.6 (2.5–2.8)	2.5 (2.4–2.7)	2.5 (2.4–2.7)	2.6 (2.5–2.8)	2.5 (2.4–2.6)	2.5 (2.4–2.6)	2.5 (2.4–2.7)	2.5 (2.3–2.6)	–	
Drugs for acid related disorders	2.0 (1.9–2.1)	2.0 (1.9–2.1)	2.1 (2.0–2.2)	2.1 (1.9–2.2)	2.0 (1.9–2.2)	2.2 (2.1–2.4)	2.3 (2.1–2.4)	2.3 (2.2–2.4)	2.5 (2.4–2.6)	2.4 (2.3–2.5)	↑	
Drugs for obstructive airway diseases	2.5 (2.4–2.7)	2.3 (2.2–2.5)	2.5 (2.3–2.6)	2.4 (2.2–2.6)	2.6 (2.4–2.7)	2.4 (2.2–2.6)	2.3 (2.2–2.5)	2.2 (2.1–2.4)	2.3 (2.2–2.5)	2.2 (2.1–2.3)	↓	
Anti-inflammatory and antirheumatic products	2.4 (2.3–2.6)	2.3 (2.1–2.4)	2.2 (2.0–2.3)	2.1 (1.9–2.2)	2.1 (2.0–2.2)	2.0 (1.8–2.1)	1.9 (1.8–2.0)	1.9 (1.7–2.0)	2.0 (1.8–2.1)	2.0 (1.8–2.1)	↓	
Drugs used in diabetes	1.6 (1.5–1.8)	1.7 (1.5–1.8)	1.9 (1.7–2.0)	1.7 (1.5–1.9)	1.8 (1.7–2.0)	1.9 (1.7–2.1)	1.8 (1.6–1.9)	1.7 (1.5–1.9)	1.8 (1.6–1.9)	2.0 (1.8–2.1)	↑	
Corticosteroids, dermatological preparations	1.8 (1.6–1.9)	1.7 (1.6–1.8)	1.7 (1.6–1.8)	1.5 (1.4–1.6)	1.7 (1.6–1.8)	1.7 (1.5–1.8)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	–	
Sex hormones and modulators of the genital system	2.0 (1.8–2.2)	1.9 (1.8–2.0)	1.7 (1.6–1.8)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.6 (1.5–1.8)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.6 (1.5–1.6)	1.5 (1.4–1.6)	↓	
Corticosteroids for systemic use	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (1.0–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	↑	

(continued)

Table 9.2a (continued): Prescribed medications by ATC level 2 (rate per 100 problems), 2006–07 to 2015–16

ATC level 2	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Antithrombotic agents	1.4 (1.3–1.5)	1.4 (1.2–1.5)	1.5 (1.4–1.6)	1.5 (1.3–1.6)	1.4 (1.3–1.5)	1.6 (1.5–1.7)	1.4 (1.3–1.5)	1.4 (1.2–1.5)	1.3 (1.2–1.4)	1.2 (1.1–1.4)	—	
Beta blocking agents	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.1)	1.0 (0.9–1.0)	↘	
Calcium channel blockers	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.5 (1.4–1.6)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	0.9 (0.9–1.0)	0.9 (0.8–1.0)	↘	
Vaccines	1.2 (1.0–1.3)	1.1 (0.9–1.2)	1.0 (0.9–1.2)	1.1 (0.9–1.3)	1.0 (0.8–1.1)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.6 (0.5–0.7)	0.9 (0.7–1.0)	↘	
Antiepileptics	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.7 (0.7–0.8)	0.9 (0.8–0.9)	0.8 (0.8–0.9)	↗	
Ophthalmologicals	1.2 (1.1–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (1.0–1.1)	1.0 (1.0–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.9–1.0)	0.8 (0.8–0.9)	↘	
Thyroid therapy	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.5–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	↗	
Diuretics	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	↘	
Nasal preparations	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	—	
Drugs for functional gastrointestinal disorders	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	↘	
Otologicals	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	—	
Other nervous system drugs	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.4–0.7)	0.6 (0.4–0.9)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	↗	
Total prescribed medications	56.1 (54.7–57.4)	54.5 (53.2–55.8)	55.9 (54.5–57.2)	54.4 (52.8–56.0)	55.8 (54.5–57.1)	56.5 (54.9–58.1)	53.8 (52.5–55.1)	52.8 (51.5–54.1)	55.2 (53.8–56.5)	53.1 (51.9–54.4)	↘	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↗↘ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; ATC – Anatomical Therapeutic Chemical index.

Table 9.2b: Prescribed medications by ATC level 2 (rate per 100 encounters), 2006–07 to 2015–16

ATC level 2	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Antibacterials for systemic use	14.0 (13.4–14.5)	13.8 (13.2–14.3)	14.6 (14.1–15.1)	14.0 (13.4–14.5)	14.5 (13.9–15.0)	14.3 (13.7–14.8)	13.8 (13.2–14.3)	12.6 (12.0–13.2)	13.5 (13.0–14.1)	12.8 (12.3–13.3)	12.8 (12.3–13.3)	↓	
Analgesics	8.0 (7.6–8.4)	7.9 (7.5–8.3)	7.9 (7.5–8.3)	8.2 (7.7–8.8)	8.6 (8.1–9.0)	9.3 (8.8–9.8)	8.9 (8.4–9.3)	9.0 (8.6–9.4)	9.4 (8.9–9.9)	8.4 (8.0–8.9)	8.4 (8.0–8.9)	–	
Agents acting on the renin-angiotensin system	6.5 (6.1–6.9)	6.6 (6.2–7.0)	7.1 (6.7–7.4)	6.5 (6.1–6.9)	6.6 (6.2–6.9)	6.9 (6.5–7.3)	6.5 (6.1–6.8)	6.4 (6.1–6.8)	6.2 (5.9–6.5)	5.9 (5.6–6.3)	5.9 (5.6–6.3)	–	
Psycholeptics	4.8 (4.5–5.1)	4.7 (4.4–5.0)	5.0 (4.7–5.3)	4.3 (4.0–4.6)	4.5 (4.2–4.8)	4.6 (4.3–4.9)	4.7 (4.4–5.0)	4.6 (4.4–4.9)	4.8 (4.5–5.2)	4.5 (4.2–4.7)	4.5 (4.2–4.7)	–	
Psychoanaesthetics	3.5 (3.3–3.7)	3.5 (3.3–3.7)	3.7 (3.5–3.9)	3.9 (3.6–4.1)	4.0 (3.8–4.3)	4.2 (3.9–4.5)	4.1 (3.9–4.3)	4.3 (4.0–4.5)	4.7 (4.4–4.9)	4.4 (4.1–4.6)	4.4 (4.1–4.6)	↑	
Lipid modifying agents	3.4 (3.2–3.7)	3.7 (3.5–4.0)	4.1 (3.8–4.3)	3.9 (3.6–4.2)	3.9 (3.6–4.1)	4.0 (3.8–4.3)	3.9 (3.6–4.1)	3.9 (3.7–4.2)	4.0 (3.7–4.2)	3.8 (3.5–4.0)	3.8 (3.5–4.0)	–	
Drugs for acid related disorders	3.0 (2.8–3.2)	3.0 (2.9–3.2)	3.3 (3.1–3.4)	3.2 (2.9–3.4)	3.1 (2.9–3.3)	3.4 (3.2–3.6)	3.5 (3.3–3.7)	3.6 (3.4–3.8)	3.8 (3.6–4.0)	3.7 (3.5–3.9)	3.7 (3.5–3.9)	↑	
Drugs for obstructive airway diseases	3.8 (3.5–4.0)	3.5 (3.3–3.8)	3.8 (3.6–4.0)	3.7 (3.4–4.0)	3.9 (3.6–4.2)	3.7 (3.4–4.0)	3.6 (3.4–3.9)	3.5 (3.2–3.8)	3.6 (3.3–3.9)	3.4 (3.2–3.6)	3.4 (3.2–3.6)	–	
Anti-inflammatory and antirheumatic products	3.6 (3.4–3.9)	3.5 (3.2–3.7)	3.4 (3.2–3.5)	3.2 (2.9–3.4)	3.2 (3.0–3.4)	3.0 (2.8–3.2)	3.0 (2.8–3.2)	2.9 (2.7–3.1)	3.0 (2.8–3.2)	3.0 (2.8–3.3)	3.0 (2.8–3.3)	↓	
Drugs used in diabetes	2.4 (2.2–2.6)	2.5 (2.3–2.7)	2.9 (2.6–3.2)	2.6 (2.4–2.9)	2.8 (2.5–3.0)	2.9 (2.6–3.2)	2.7 (2.5–3.0)	2.7 (2.4–2.9)	2.7 (2.5–3.0)	3.0 (2.8–3.3)	3.0 (2.8–3.3)	↑	
Corticosteroids, dermatological preparations	2.6 (2.4–2.8)	2.6 (2.4–2.7)	2.6 (2.5–2.8)	2.4 (2.2–2.5)	2.6 (2.4–2.7)	2.5 (2.4–2.7)	2.4 (2.2–2.5)	2.4 (2.2–2.5)	2.5 (2.3–2.6)	2.4 (2.3–2.6)	2.4 (2.3–2.6)	–	
Sex hormones and modulators of the genital system	3.0 (2.7–3.3)	2.9 (2.7–3.0)	2.7 (2.5–2.9)	2.5 (2.3–2.6)	2.5 (2.3–2.6)	2.5 (2.4–2.7)	2.3 (2.2–2.5)	2.3 (2.2–2.5)	2.4 (2.3–2.6)	2.3 (2.2–2.5)	2.3 (2.2–2.5)	↓	
Corticosteroids for systemic use	1.3 (1.2–1.5)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.4 (1.3–1.6)	1.4 (1.3–1.5)	1.6 (1.5–1.7)	1.7 (1.6–1.8)	1.7 (1.6–1.8)	1.7 (1.6–1.9)	1.9 (1.8–2.1)	1.9 (1.8–2.1)	↑	

(continued)

Table 9.2b (continued): Prescribed medications by ATC level 2 (rate per 100 encounters), 2006–07 to 2015–16

ATC level 2	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Antithrombotic agents	2.1 (1.9–2.2)	2.1 (1.9–2.3)	2.4 (2.2–2.5)	2.2 (2.1–2.4)	2.1 (2.0–2.3)	2.5 (2.2–2.7)	2.1 (1.9–2.3)	2.1 (2.0–2.3)	2.1 (1.9–2.3)	2.1 (1.9–2.3)	1.9 (1.7–2.1)	—
Beta blocking agents	1.8 (1.7–2.0)	1.7 (1.6–1.9)	2.0 (1.8–2.1)	1.6 (1.5–1.8)	1.7 (1.6–1.8)	1.7 (1.6–1.9)	1.7 (1.5–1.8)	1.6 (1.5–1.8)	1.6 (1.5–1.8)	1.6 (1.5–1.8)	1.5 (1.3–1.6)	↓
Calcium channel blockers	2.1 (2.0–2.3)	2.1 (1.9–2.3)	2.3 (2.1–2.4)	2.0 (1.9–2.2)	1.8 (1.7–2.0)	1.8 (1.7–2.0)	1.6 (1.5–1.8)	1.6 (1.5–1.7)	1.4 (1.3–1.6)	1.4 (1.3–1.6)	1.4 (1.2–1.5)	↓
Vaccines	1.7 (1.5–1.9)	1.6 (1.4–1.8)	1.6 (1.4–1.8)	1.7 (1.4–1.9)	1.5 (1.3–1.7)	1.3 (1.1–1.5)	1.1 (0.9–1.2)	1.3 (1.1–1.5)	1.0 (0.8–1.1)	1.0 (0.8–1.1)	1.3 (1.1–1.5)	↓
Antiepileptics	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	↑
Ophthalmologicals	1.7 (1.6–1.8)	1.7 (1.5–1.8)	1.7 (1.6–1.8)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.6 (1.4–1.7)	1.4 (1.3–1.5)	1.3 (1.2–1.4)	1.4 (1.3–1.6)	1.4 (1.3–1.6)	1.3 (1.2–1.4)	↓
Thyroid therapy	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	↑
Diuretics	1.4 (1.3–1.5)	1.2 (1.1–1.4)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	0.9 (0.8–1.0)	↓
Nasal preparations	0.7 (0.6–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.8–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	—
Drugs for functional gastrointestinal disorders	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	—
Otologicals	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	—
Urologicals	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	↑
Other nervous system drugs	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.8 (0.6–0.9)	0.8 (0.6–0.9)	0.9 (0.8–1.0)	0.8 (0.7–1.0)	0.9 (0.7–1.1)	1.0 (0.6–1.4)	0.8 (0.6–1.0)	0.8 (0.6–1.0)	0.6 (0.5–0.7)	↑

(continued)

Table 9.2b (continued): Prescribed medications by ATC level 2 (rate per 100 encounters), 2006–07 to 2015–16

ATC level 2	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)			
Antibiotics and chemotherapeutics for dermatological use	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	↑
Antianemic preparations	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	—
Cardiac therapy	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	↓
Antigout preparations	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↑
Drugs for treatment of bone diseases	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	—
Drugs for constipation	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	↑
Antidiarrheals, intestinal anti-inflammatory/anti-infective agents	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	↓
Total prescribed medications	83.3 (81.0–85.5)	82.4 (80.3–84.6)	86.4 (84.1–88.6)	83.4 (80.6–86.2)	85.1 (82.9–87.3)	86.8 (84.0–89.7)	83.3 (81.0–85.5)	83.5 (81.2–85.8)	85.5 (83.1–88.0)	82.0 (79.8–84.2)	82.0 (79.8–84.2)	82.0 (79.8–84.2)	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval; ATC – Anatomical Therapeutic Chemical index.

Table 9.3a: Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2006–07 to 2015–16

Generic drug	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)	
Amoxicillin	2.2 (2.0–2.4)	2.3 (2.1–2.5)	2.3 (2.1–2.4)	2.1 (1.9–2.3)	2.1 (2.0–2.3)	2.1 (1.9–2.3)	2.0 (1.8–2.1)	1.6 (1.5–1.7)	2.0 (1.8–2.1)	1.8 (1.6–1.9)	1.8 (1.6–1.9)	↓
Cephalexin	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.7 (1.6–1.8)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.7 (1.6–1.8)	1.6 (1.5–1.7)	1.8 (1.7–1.9)	1.6 (1.4–1.7)	1.6 (1.4–1.7)	–
Amoxicillin/potassium clavulanate	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.1–1.4)	1.1 (1.0–1.2)	1.3 (1.2–1.5)	1.3 (1.2–1.5)	1.3 (1.2–1.5)	–
Esomeprazole	0.7 (0.6–0.7)	0.8 (0.7–0.8)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	1.0 (0.9–1.0)	1.0 (1.0–1.1)	1.1 (1.0–1.2)	1.1 (1.1–1.2)	1.2 (1.1–1.2)	1.2 (1.1–1.2)	↑
Paracetamol [plain]	1.7 (1.5–1.9)	1.6 (1.5–1.8)	1.5 (1.4–1.6)	1.8 (1.5–2.0)	1.7 (1.5–1.8)	1.9 (1.7–2.1)	1.6 (1.4–1.8)	1.6 (1.4–1.7)	1.6 (1.4–1.7)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	↓
Paracetamol/codeine [all]	1.3 (1.2–1.4)	1.3 (1.1–1.4)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.1–1.4)	1.1 (1.0–1.2)	1.0 (0.9–1.0)	1.1 (1.1–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	↓
Oxycodone	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.9 (0.8–0.9)	1.0 (0.9–1.0)	1.0 (0.9–1.1)	1.1 (1.0–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	0.9 (0.9–1.0)	0.9 (0.9–1.0)	↑
Atorvastatin	1.1 (1.0–1.2)	1.1 (1.0–1.3)	1.2 (1.1–1.3)	1.0 (1.0–1.1)	1.0 (1.0–1.1)	1.0 (1.0–1.1)	0.9 (0.9–1.0)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	↓
Rosuvastatin	0.0 ^F (0.0–0.0)	0.2 (0.2–0.3)	0.4 (0.3–0.4)	0.5 (0.5–0.6)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.9 (0.8–0.9)	↑
Metformin	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.8–0.9)	0.9 (0.8–0.9)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	↑
Salbutamol	0.9 (0.9–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↓
Diazepam	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.8)	–
Perindopril	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.9 (0.8–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.8)	0.8 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	↓
Tramadol	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	–

(continued)

Table 9.3a (continued): Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2006–07 to 2015–16

Generic drug	Rate per 100 problems (95% CI)											2015–16 (n = 150,279)	↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)		
Meloxicam	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	—
Thyroxine	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.4)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	↑
Temazepam	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	↔
Pantoprazole	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↑
Warfarin sodium	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	↔
Betamethasone topical	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↑
Prednisolone oral ^(b)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	↑
Oxycodone/naloxone	N/A	N/A	N/A	N/A	N/A	0.0 [†] (0.0–0.0)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	↑
Levonorgestrel/ ethinylloestradiol	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↔
Doxycycline	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	—
Pregabalin	0.0 [†] (0.0–0.0)	0.0 [†] (0.0–0.0)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.4 (0.3–0.4)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	↑
Roxithromycin	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.5 (0.4–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	↔
Irbesartan	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	↔
Fluticasone/salmeterol	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	↔

(continued)

Table 9.3a (continued): Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2006–07 to 2015–16

Generic drug	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑ ^(a) ↓	
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16			
Generic medications frequently prescribed in previous years													
Chloramphenicol eye	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.4)	0.4 (0.4–0.4)	↓
Amlodipine	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	↓
Ramipril	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	↓
Atenolol	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.3 (0.3–0.3)	↓
Diclofenac sodium systemic	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.2–0.3)	0.3 (0.2–0.3)	↓
Irbesartan/hydrochlorothiazide	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↓
Simvastatin	0.7 (0.7–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.4 (0.4–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↓
Cefaclor monohydrate	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	↓
Total prescribed medications	56.1 (54.7–57.4)	54.5 (53.2–55.8)	55.9 (54.5–57.2)	54.4 (52.8–56.0)	55.8 (54.5–57.1)	56.5 (54.9–58.1)	53.8 (52.5–55.1)	52.8 (51.5–54.1)	55.2 (53.8–56.5)	53.1 (51.9–54.4)	53.1 (51.9–54.4)	53.1 (51.9–54.4)	↓

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Does not include prednisolone sodium phosphate.

† Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 problems managed.

Note: CAPS – Coding Atlas for Pharmaceutical Substances; CI – confidence interval; N/A – not applicable (that is, drug was not available at that time).

Table 9.3b: Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2006–07 to 2015–16

Generic drug	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Amoxicillin	3.3 (3.0–3.6)	3.5 (3.2–3.7)	3.5 (3.3–3.8)	3.2 (3.0–3.5)	3.3 (3.0–3.5)	3.2 (3.0–3.5)	3.0 (2.8–3.3)	2.5 (2.3–2.7)	3.0 (2.8–3.3)	2.8 (2.5–3.0)	2.8 (2.5–3.0)	2.8 (2.5–3.0)	↓
Cephalexin	2.3 (2.2–2.5)	2.4 (2.3–2.6)	2.5 (2.3–2.6)	2.6 (2.5–2.8)	2.7 (2.5–2.9)	2.8 (2.6–3.0)	2.6 (2.4–2.8)	2.6 (2.4–2.7)	2.8 (2.6–3.0)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	–
Amoxicillin/potassium clavulanate	1.7 (1.5–1.9)	1.7 (1.6–1.9)	1.8 (1.7–2.0)	1.6 (1.5–1.8)	2.0 (1.8–2.2)	1.9 (1.7–2.0)	2.0 (1.8–2.1)	1.7 (1.6–1.9)	2.1 (1.9–2.3)	2.1 (1.9–2.3)	2.1 (1.9–2.3)	2.1 (1.9–2.3)	↑
Esomeprazole	1.0 (0.9–1.1)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.1–1.4)	1.2 (1.1–1.3)	1.5 (1.4–1.6)	1.6 (1.5–1.7)	1.7 (1.6–1.8)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	1.8 (1.7–1.9)	↑
Paracetamol [plain]	2.6 (2.3–2.8)	2.5 (2.2–2.7)	2.3 (2.1–2.5)	2.7 (2.3–3.0)	2.5 (2.3–2.8)	2.9 (2.7–3.2)	2.5 (2.2–2.7)	2.5 (2.3–2.7)	2.4 (2.2–2.7)	1.7 (1.5–1.9)	1.7 (1.5–1.9)	1.7 (1.5–1.9)	↓
Paracetamol/codeine [all]	2.0 (1.8–2.1)	1.9 (1.7–2.1)	1.9 (1.8–2.0)	1.7 (1.5–1.8)	1.9 (1.7–2.0)	1.9 (1.8–2.1)	1.8 (1.6–1.9)	1.5 (1.4–1.6)	1.8 (1.6–1.9)	1.5 (1.4–1.7)	1.5 (1.4–1.7)	1.5 (1.4–1.7)	↓
Oxycodone	0.9 (0.8–1.0)	1.0 (0.9–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.5 (1.3–1.6)	1.5 (1.4–1.6)	1.6 (1.5–1.8)	1.7 (1.6–1.9)	1.7 (1.5–1.8)	1.5 (1.3–1.6)	1.5 (1.3–1.6)	1.5 (1.3–1.6)	↑
Atorvastatin	1.7 (1.5–1.8)	1.7 (1.6–1.9)	1.9 (1.7–2.0)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.5 (1.3–1.6)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	↓
Rosuvastatin	0.0 ^F (0.0–0.1)	0.3 (0.3–0.4)	0.6 (0.5–0.6)	0.8 (0.7–0.9)	0.9 (0.9–1.0)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	↑
Metformin	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.4 (1.2–1.5)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	↑
Salbutamol	1.4 (1.3–1.5)	1.3 (1.2–1.5)	1.4 (1.3–1.5)	1.4 (1.2–1.6)	1.4 (1.2–1.5)	1.3 (1.2–1.5)	1.3 (1.2–1.4)	1.2 (1.1–1.4)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	↓
Diazepam	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.3)	1.0 (0.9–1.1)	1.0 (0.9–1.2)	1.1 (1.0–1.2)	1.3 (1.1–1.4)	1.2 (1.1–1.3)	1.3 (1.1–1.4)	1.2 (1.0–1.3)	1.2 (1.0–1.3)	1.2 (1.0–1.3)	–
Perindopril	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.3 (1.2–1.5)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.2 (1.0–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	–

(continued)

Table 9.3b (continued): Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2006–07 to 2015–16

Generic drug	Rate per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Tramadol	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.8–1.1)	–
Meloxicam	0.7 (0.7–0.8)	0.9 (0.8–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	↑
Thyroxine	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.7–0.8)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	↑
Temazepam	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.0 (0.9–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	↓
Pantoprazole	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	↔
Warfarin sodium	1.0 (0.9–1.2)	1.1 (0.9–1.2)	1.2 (1.1–1.4)	1.2 (1.0–1.3)	1.2 (1.0–1.3)	1.4 (1.3–1.6)	1.2 (1.0–1.3)	1.1 (1.0–1.3)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–1.0)	–
Betamethasone topical	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.9 (0.8–0.9)	0.8 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	–
Prednisolone oral ^(b)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	↑
Oxycodone/naloxone	N/A	N/A	N/A	N/A	N/A	0.0 ^F (0.0–0.0)	0.2 (0.2–0.3)	0.4 (0.3–0.5)	0.7 (0.6–0.8)	0.7 (0.7–0.9)	0.8 (0.7–0.9)	↔
Levonorgestrel/ ethinylloestradiol	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.8 (0.8–0.9)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	0.8 (0.8–0.9)	0.8 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↓
Doxycycline	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	–
Pregabalin	0.0 ^F (0.0–0.0)	0.0 ^F (0.0–0.0)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.6 (0.5–0.6)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	↔
Roxithromycin	1.4 (1.2–1.5)	1.2 (1.1–1.4)	1.4 (1.3–1.5)	1.3 (1.2–1.5)	1.1 (1.0–1.2)	1.1 (1.0–1.3)	1.0 (0.9–1.2)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.8)	↔
Irbesartan	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.8 (0.7–0.9)	1.0 (0.9–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	↓

(continued)

Table 9.3b (continued): Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2006–07 to 2015–16

Generic drug	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Fluticasone/salmeterol	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	↓
Generic medications frequently prescribed in previous years													
Atenolol	1.0 (0.8–1.1)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	↓
Diclofenac sodium systemic	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	↓
Irbesartan/ hydrochlorothiazide	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	↓
Influenza virus vaccine	0.6 (0.5–0.7)	0.4 (0.3–0.5)	0.6 (0.4–0.7)	0.6 (0.4–0.7)	0.5 (0.3–0.6)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	↓
Omeprazole	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.3)	↓
Aspirin cardiovascular	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↓
Cefaclor monohydrate	0.8 (0.6–0.9)	0.6 (0.5–0.7)	0.8 (0.7–0.9)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.3 (0.2–0.4)	0.3 (0.2–0.4)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	↓
Total prescribed medications	83.3 (81.0–85.5)	82.4 (80.3–84.6)	86.4 (84.1–88.6)	83.4 (80.6–86.2)	85.1 (82.9–87.3)	86.8 (84.0–89.7)	83.3 (81.0–85.5)	83.5 (81.2–85.8)	85.5 (83.1–88.0)	82.0 (79.8–84.2)	—	—	—

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗/↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Does not include prednisolone sodium phosphate.

† Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 problems managed.

Note: CAPS – Coding Atlas for Pharmaceutical Substances; CI – confidence interval; N/A – not applicable (that is, drug was not available at that time).

Table 9.4: Number of repeats ordered for prescribed medications, 2006–07 to 2015–16

Number of repeats	Per cent of prescriptions (95% CI) ^(a)											^(b)
	2006–07 (n = 76,430)	2007–08 (n = 79,051)	2008–09 (n = 83,509)	2009–10 (n = 84,539)	2010–11 (n = 81,543)	2011–12 (n = 85,980)	2012–13 (n = 82,079)	2013–14 (n = 80,046)	2014–15 (n = 84,455)	2015–16 (n = 79,871)		
No repeats	35.2 (33.7–36.7)	34.5 (33.1–35.9)	34.0 (32.8–35.2)	34.2 (32.7–35.7)	34.7 (33.3–36.0)	34.7 (33.2–36.2)	34.5 (33.0–35.9)	34.0 (32.7–35.2)	35.3 (33.9–36.7)	37.4 (36.0–38.8)	—	
One repeat	16.4 (15.6–17.1)	16.8 (16.0–17.6)	17.1 (16.1–18.0)	15.9 (15.2–16.6)	15.9 (15.2–16.6)	16.2 (15.3–17)	15.8 (15.1–16.5)	14.9 (14.2–15.6)	15.3 (14.6–16.0)	14.0 (13.3–14.7)	↘	
Two repeats	10.5 (9.6–11.4)	10.2 (9.3–11.1)	9.7 (9.0–10.3)	9.6 (8.9–10.3)	9.8 (9.0–10.5)	9.6 (8.9–10.3)	9.2 (8.7–9.8)	9.6 (9.0–10.2)	9.0 (8.5–9.5)	9.0 (8.3–9.8)	—	
Three or four repeats	4.8 (4.3–5.3)	4.6 (4.1–5.1)	4.4 (4.0–4.8)	4.3 (3.9–4.8)	4.1 (3.7–4.5)	3.8 (3.4–4.1)	3.7 (3.4–4.1)	3.5 (3.3–3.8)	3.6 (3.3–4.0)	3.3 (3.0–3.6)	↘	
Five repeats	33.0 (31.7–34.4)	33.8 (32.5–35.1)	34.8 (33.6–36.0)	35.8 (34.2–37.4)	35.4 (34.2–36.6)	35.5 (34.1–36.9)	36.6 (35.4–37.8)	37.8 (36.6–39.0)	36.6 (35.2–37.9)	36.1 (34.9–37.4)	↗	
Six or more repeats	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.3)	0.2 (0.1–0.3)	0.2 (0.1–0.2)	—	

(a) Missing data removed.

(b) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↗ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↘ indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval.

Table 9.5a: Medications most frequently supplied by GPs (rate per 100 problems), 2006–07 to 2015–16

Generic medication	Rate per 100 problems (95% CI)										↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	
Influenza virus vaccine	1.3 (1.1–1.6)	1.0 (0.8–1.1)	1.5 (1.3–1.7)	2.7 (2.4–3.0)	1.7 (1.5–2.0)	1.3 (1.0–1.5)	1.5 (1.3–1.8)	2.1 (1.7–2.4)	0.8 (0.7–0.9)	1.7 (1.4–2.1)	§
Pneumococcal vaccine	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.3 (0.3–0.4)	↓
Vitamin B12 (cobalamin)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	↑
Diphtheria/pertussis/ tetanus/hepatitis B/polio/ Haemophilus influenzae B vaccine	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.3)	0.3 (0.2–0.3)	↑
Triple antigen (diphtheria/ pertussis/tetanus)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.3 (0.2–0.3)	↑
Rotavirus vaccine	0.0 ^f (0.0–0.0)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	↑
Measles/mumps/rubella vaccine	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	—
Measles/mumps/rubella/ varicella vaccine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0 ^f (0.0–0.0)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	↑
ADT/CDT (diphtheria/ tetanus) vaccine	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—
Diphtheria/pertussis/ tetanus/polio vaccine	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	↓
Total GP-supplied medications	6.0 (5.5–6.5)	6.7 (6.3–7.1)	7.1 (6.6–7.6)	8.9 (8.3–9.5)	6.8 (6.2–7.3)	6.3 (5.8–6.8)	6.4 (5.9–6.9)	6.5 (6.0–6.9)	5.2 (4.8–5.5)	5.9 (5.4–6.4)	§

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗/↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; § indicates a noteworthy change during the decade.

† Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 problems managed.

Note: ADT – adult diphtheria/tetanus; CDT – child diphtheria/tetanus; CI – confidence interval; N/A – not applicable (that is, drug was not available at that time).

Table 9.5b: Medications most frequently supplied by GPs (rate per 100 encounters), 2006–07 to 2015–16

Generic medication	Rate per 100 encounters (95% CI)											↑ ^(a) ↓ ^(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Influenza virus vaccine	2.0 (1.6–2.3)	1.5 (1.2–1.7)	2.3 (2.0–2.7)	4.1 (3.7–4.6)	2.7 (2.2–3.1)	1.9 (1.6–2.3)	2.3 (1.9–2.7)	3.3 (2.7–3.9)	1.2 (1.0–1.5)	2.7 (2.1–3.2)	§	
Pneumococcal vaccine	0.6 (0.6–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	↓	
Vitamin B12 (cobalamin)	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	↑	
Diphtheria/pertussis/ tetanus/hepatitis B/polio/ Haemophilus influenzae B vaccine	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.5)	↑	
Triple antigen (diphtheria/ pertussis/tetanus)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.4 (0.3–0.5)	↑	
Rotavirus vaccine	0.0 ^f (0.0–0.0)	0.1 (0.1–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	↑	
Measles/ mumps/rubella vaccine	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.2 (0.2–0.3)	↓	
ADT/CDT (diphtheria/ tetanus) vaccine	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	↓	
Diphtheria/pertussis/ tetanus/polio vaccine	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—	
Human papillomavirus vaccine	0.0 ^f (0.0–0.0)	1.0 (0.8–1.1)	0.6 (0.6–0.7)	0.2 (0.2–0.3)	0.0 ^f (0.0–0.1)	0.0 ^f (0.0–0.0)	0.0 ^f (0.0–0.0)	0.1 (0.0–0.1)	0.0 ^f (0.0–0.0)	0.0 ^f (0.0–0.1)	§	
Total GP-supplied medications	8.9 (8.2–9.6)	10.1 (9.5–10.7)	11.0 (10.2–11.8)	13.6 (12.7–14.6)	10.3 (9.5–11.2)	9.7 (8.9–10.5)	9.9 (9.1–10.7)	10.2 (9.4–11.0)	8.0 (7.4–8.6)	9.1 (8.3–9.9)	§	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗/↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; § indicates a noteworthy change during the decade.

† Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 encounters.

Note: CI – confidence interval; ADT – adult diphtheria/tetanus; CDT – child diphtheria/tetanus.

Table 9.6a: Most frequently advised over-the-counter medications (rate per 100 problems), 2006–07 to 2015–16

Generic drug	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑↓ ^(a)
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)	
Paracetamol [plain]	1.6 (1.4–1.8)	1.7 (1.5–1.9)	1.5 (1.3–1.7)	1.6 (1.4–1.8)	1.7 (1.5–1.9)	1.9 (1.6–2.1)	1.6 (1.3–1.9)	1.4 (1.2–1.6)	1.6 (1.4–1.8)	2.0 (1.7–2.2)	—	
Ibuprofen	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.5 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	↑	
Sodium chloride topical nasal	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.3)	↑	
Mometasone nasal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0 ^F (0.0–0.1)	0.1 (0.1–0.2)	↑	
Sodium/potassium/citric acid/glucose	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	—	
Diclofenac topical	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	↑	
Simple analgesics NEC	0.0 ^F (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.0 ^F (0.0–0.1)	0.0 ^F (0.0–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	↑	
Loratadine	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—	
Cetirizine	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—	
Vitamin D3 (cholecalciferol)	0.0 ^F (0.0–0.0)	0.1 (0.0–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	↑	
Total OTC medications	6.3 (5.8–6.8)	6.7 (6.2–7.2)	5.7 (5.3–6.1)	6.2 (5.7–6.7)	6.4 (5.9–6.9)	6.8 (6.3–7.4)	6.1 (5.5–6.7)	5.6 (5.2–6.1)	6.1 (5.7–6.6)	7.1 (6.6–7.6)	—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

^F Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 problems managed.

Note: CI – confidence interval; OTC – over-the-counter medication; N/A – not applicable (that is, drug was not available OTC at that time); NEC – not elsewhere classified.

Table 9.6b: Most frequently advised over-the-counter medications (rate per 100 encounters), 2006–07 to 2015–16

Generic drug	Rate per 100 encounters (95% CI)											2015–16 ↑(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Paracetamol [plain]	2.4 (2.1–2.7)	2.5 (2.2–2.9)	2.3 (2.0–2.6)	2.5 (2.2–2.8)	2.6 (2.3–2.9)	2.9 (2.5–3.2)	2.5 (2.0–3.0)	2.3 (1.9–2.6)	2.5 (2.2–2.8)	3.0 (2.7–3.4)	↑	
Ibuprofen	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	↑	
Sodium chloride topical nasal	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.3)	0.3 (0.2–0.4)	↑	
Mometasone nasal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1 (0.0–0.1)	0.2 (0.2–0.3)	↑	
Sodium/potassium/citric acid/glucose	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	↑	
Diclofenac topical	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—	
Simple analgesics NEC	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.2 (0.1–0.3)	0.2 (0.1–0.3)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.3)	↑	
Loratadine	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—	
Cetirizine	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	—	
Vitamin D3 (cholecalciferol)	0.0 ^f (0.0–0.1)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	↑	
Total OTC medications	9.4 (8.7–10.1)	10.1 (9.3–10.9)	8.9 (8.3–9.4)	9.5 (8.7–10.3)	9.8 (9.0–10.5)	10.5 (9.7–11.3)	9.4 (8.4–10.3)	8.9 (8.2–9.6)	9.5 (8.8–10.2)	10.9 (10.1–11.8)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↗/↘ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

^f Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 encounters.

Note: CI – confidence interval; OTC – over-the-counter medication; N/A – not applicable (that is, drug was not available OTC at that time); NEC – not elsewhere classified.

10 Other treatments

This chapter summarises other (non-pharmacological) treatments (including clinical and procedural treatments) provided at, or in conjunction with, recorded GP–patient encounters in each of the 10 years of the BEACH study 2006–07 to 2015–16. Clinical and procedural treatments are defined in Appendix 4, Tables A4.3 and A4.4, available at <hdl.handle.net/2123/15482>.

The survey form allowed GPs to record up to two other treatments for each problem managed at the encounter. Routine clinical measurements or observations, such as measurements of blood pressure and physical examinations, were not recorded if they were undertaken by the GP. However, GPs were instructed to record clinical measurements or observations if these were undertaken by the practice nurse (PN) or Aboriginal health worker (AHW) in conjunction with the GP at the encounter.

All 'other treatments' are reported, irrespective of whether they were done by the GP or by the PN/AHW at the encounter. That is, all non-pharmacological management provided at general practice patient encounters is described, rather than management provided specifically by the GP. In the analysis of procedural treatments (Section 10.2), injections given in the provision of vaccines were removed, as this action has already been counted and reported in Section 9.2.

Other treatments data for the 10 years from 2006–07 to 2015–16, are reported in two ways: as rates per 100 problems managed (for example, Table 10.1a) and as rates per 100 encounters (for example, Table 10.1b). In describing changes over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase in the number of problems managed per encounter over the study period – this increases the chance one or more other treatments would be given at the encounter.

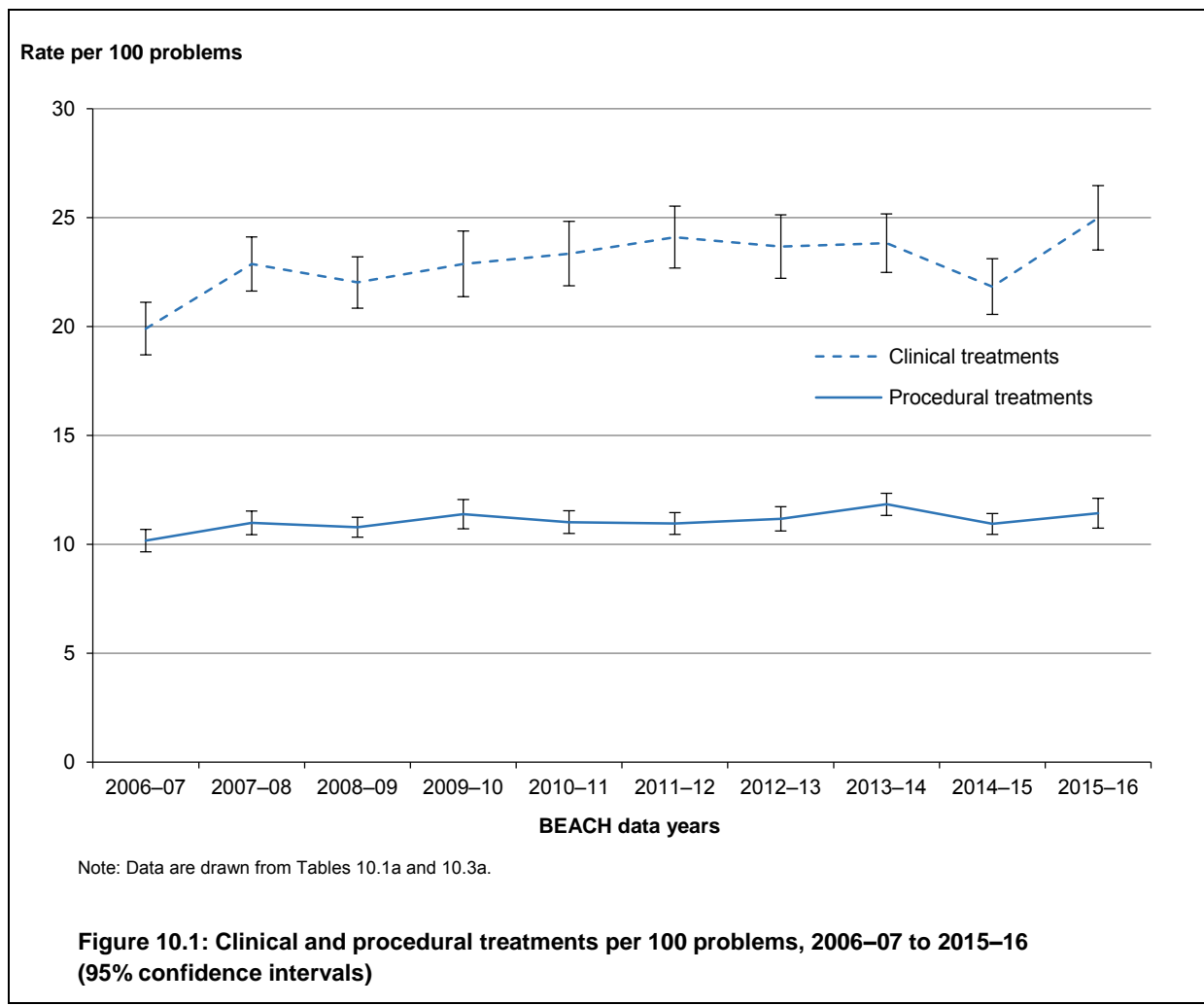
The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) comparing 2015–16 with 2006–07; ↗/↘ indicates a marginally significant change comparing 2015–16 with 2006–07; — indicates there was no significant change across the decade; and § indicates no change comparing 2015–16 with 2006–07 but a noteworthy change within the decade.

Changes in the rate per 100 encounters are extrapolated to estimate the national increase or decrease in the other treatments provided between 2006–07 and 2015–16. Examples of extrapolated change are given. The method used to extrapolate to national change estimates is described in Section 2.9. Readers interested in the national impact of a specific measured change can apply this extrapolation method to any reported change.

More detailed analyses of other treatments recorded in BEACH in 2015–16 can be found in Chapter 10 of *General practice activity in Australia 2015–16*.¹

Figure 10.1 shows there was a significant increase in the rate at which clinical treatments were provided per 100 problems managed from 2006–07 to 2007–08. The rate then remained relatively steady, but again rose significantly in 2015–16.

Comparing 2015–16 with 2006–07, there was no significant change in the rate at which procedural treatments were performed over the decade, peaking in 2013–14, but remaining steady in other years.



10.1 Clinical treatments

From 2006–07 to 2015–16, there was a significant increase in the rate at which clinical treatments were provided at GP–patient encounters, from 19.9 per 100 problems managed to 25.0 per 100 problems managed. However, this increase largely occurred between 2006–07 and 2007–08, and in the final BEACH year of 2015–16 (Table 10.1a).

- General advice and education was the most frequently recorded clinical treatment throughout the decade. There was no significant change in the rate between 2006–07 (3.9 per 100 problems managed) and 2015–16 (4.1 per 100). The rates at which GPs provided counselling about the problem, and psychological counselling did not change over the study period.
- The rates at which both advice/education about treatment, and about medication were provided, significantly increased over the decade.
- While the provision of sickness certificates remained steady over the decade, other administrative procedures/documentations almost doubled, from 0.9 per 100 problems to 1.7 per 100.
- Counselling/advice about nutrition/weight remained steady at around 2 per 100 problems managed, but occasions of counselling about lifestyle almost tripled (from 0.3 per 100 problems managed to 0.8 per 100), as did counselling about health/body (0.1 to 0.4 per 100).
- Over the decade, there was no change in the rate of counselling/advice about smoking, but there was a significant rise in such advice in the middle of the decade.

When these results are considered in terms of content of GP encounters, there was a 30% growth in provision of clinical treatments from 29.6 to 38.6 per 100 encounters (Table 10.1b). Extrapolation of this result to all Medicare-claimed encounters suggests that nationally in 2015–16, there were 24.6 million more occasions of clinical treatments given by GPs than 10 years earlier. This was due to the increase in provision of clinical treatments + the increased number of problems managed per encounter over the decade (see Section 7.1) + the massive increase in the number of GP visits claimed through Medicare due to an increase in visit rate (see Table 2.1).

In 2006–07, for every 100 GP–patient encounters in 2006–07, one or more clinical treatments were provided in the management of 26.8 problems. In 2015–16, this had significantly increased to 34.7 problems per 100 encounters (Table 10.2).

- In 2015–16, URTI was the most common problem managed with clinical treatment(s) and the frequency of clinical treatment management of URTI rose from 1.4 per 100 encounters in 2006–07 to 1.9 per 100 in 2015–16.
- There were significant increases in the rates at which clinical treatments were provided in management of: diabetes, back complaint, test results, general check-up, and sleep disturbance. Extrapolation of the diabetes result to all Medicare-claimed GP consultation items suggests that there were about 890,000 more occasions nationally where clinical treatment was provided in management of diabetes in 2015–16 than in 2006–07.
- There was no change in the frequency of GP provision of clinical treatments at management occasions of: depression, hypertension, lipid disorders, gastroenteritis or obesity.

10.2 Procedures undertaken

There was a significant increase in the rate at which procedures were performed, from 10.2 per 100 problems managed in 2006–07 to 11.4 per 100 in 2015–16 (Table 10.3a), and from 15.1 procedures per 100 encounters in 2006–07 to 17.6 per 100 in 2015–16 (Table 10.3b). The extrapolated effect of this increase is that nationally in 2015–16 there were an estimated 9.6 million more procedures undertaken at GP–patient encounters than there were a decade earlier.

- The most frequently recorded group of procedures throughout the decade was excision/removal tissue/biopsy/destruction/debridement/cauterisation. In 2015–16, procedures in this group were provided at a rate of 2.0 per 100 problems managed. There was no significant change in this rate between 2006–07 and 2015–16.
- There was a four-fold increase in the rate at which GPs recorded international normalised ratio (INR) tests (rising from 0.1 per 100 problems managed to 0.4 per 100 problems managed). When extrapolated on the basis of its increased rate per 100 encounters (Table 10.3b), we estimate there were approximately 900,000 more INR tests performed at GP encounters nationally in 2015–16, than in 2006–07.
- Significant increases were also apparent in rates of other preventive procedures/high risk medication, and local injection/infiltrations, per 100 problems managed.
- In 2006–07, one or more procedures were used in the management of 14.3 problems per 100 GP–patient encounters. By 2015–16, this had significantly increased to 16.5 problems per 100 encounters (Table 10.4). Extrapolation of this result suggests that across Australia in 2015–16, there were about 8.8 million more occasions where one or more procedures were used than a decade earlier.
- In 2015–16, laceration/cut was the most common problem managed with a procedural treatment (0.9 per 100 encounters) compared with 0.7 per 100 encounters 10 years earlier, though this change was only marginally significant.

Table 10.1a: The most frequent clinical treatments (rate per 100 problems), 2006–07 to 2015–16

Treatment	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑ ↓ ^(a)
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)	
Advice/education NEC*	3.9 (3.4–4.4)	4.7 (4.2–5.3)	4.0 (3.5–4.4)	4.1 (3.5–4.6)	3.9 (3.4–4.4)	3.8 (3.4–4.3)	3.7 (3.2–4.3)	3.9 (3.4–4.5)	3.9 (3.4–4.5)	4.1 (3.4–4.7)	—	
Counselling – problem*	2.9 (2.5–3.4)	2.9 (2.5–3.2)	2.5 (2.1–2.8)	2.8 (2.4–3.2)	3.5 (2.9–4.0)	3.0 (2.5–3.5)	3.2 (2.8–3.7)	2.9 (2.5–3.3)	2.7 (2.3–3.1)	3.2 (2.8–3.6)	—	
Advice/education – treatment*	1.9 (1.7–2.1)	2.3 (2.0–2.5)	2.3 (2.0–2.6)	2.6 (2.2–3.0)	2.2 (1.9–2.5)	2.5 (2.3–2.8)	2.4 (2.2–2.7)	2.4 (2.2–2.7)	2.1 (1.9–2.4)	2.8 (2.5–3.1)	↑	
Counsel/advice – nutrition/weight*	2.3 (2.0–2.5)	2.8 (2.5–3.0)	2.6 (2.4–2.9)	2.4 (2.2–2.7)	2.6 (2.3–2.9)	2.6 (2.3–2.9)	2.4 (2.2–2.7)	2.5 (2.2–2.7)	1.9 (1.7–2.2)	2.5 (2.1–2.8)	—	
Counselling – psychological*	1.9 (1.8–2.1)	2.1 (2.0–2.3)	2.1 (1.9–2.3)	2.2 (2.1–2.4)	2.1 (1.9–2.3)	2.2 (2.0–2.3)	2.0 (1.9–2.2)	2.2 (2.0–2.3)	2.0 (1.8–2.1)	2.0 (1.8–2.2)	—	
Advice/education – medication*	1.2 (1.1–1.3)	1.3 (1.2–1.5)	1.5 (1.3–1.7)	1.6 (1.4–1.7)	1.8 (1.6–2.0)	2.1 (1.9–2.3)	2.1 (1.9–2.3)	2.1 (1.9–2.3)	1.8 (1.7–2.0)	2.0 (1.8–2.2)	↑	
Other administrative procedure/document (excl. sickness certificate)*	0.9 (0.8–0.9)	1.1 (1.0–1.1)	1.2 (1.1–1.3)	1.4 (1.3–1.5)	1.3 (1.2–1.4)	1.5 (1.3–1.6)	1.7 (1.5–1.8)	1.8 (1.7–2.0)	1.5 (1.4–1.6)	1.7 (1.5–1.8)	↑	
Sickness certificate*	1.1 (0.9–1.2)	1.1 (0.9–1.3)	1.3 (1.1–1.5)	0.9 (0.8–1.0)	1.1 (0.9–1.2)	1.1 (1.0–1.3)	1.2 (1.0–1.4)	1.0 (0.8–1.1)	1.0 (0.9–1.2)	1.0 (0.9–1.2)	—	
Reassurance, support	0.7 (0.6–0.8)	0.9 (0.8–1.1)	1.0 (0.8–1.1)	0.9 (0.7–1.1)	0.9 (0.7–1.0)	1.0 (0.9–1.1)	0.9 (0.7–1.0)	0.8 (0.7–1.0)	0.9 (0.8–1.1)	0.9 (0.8–1.1)	↑	
Counsel/advice – lifestyle*	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.1 (0.1–0.2)	0.4 (0.3–0.4)	0.3 (0.2–0.4)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.8 (0.7–1.0)	↑	
Counsel/advice – exercise*	0.8 (0.6–0.9)	0.9 (0.7–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.7–1.0)	0.8 (0.7–0.9)	0.7 (0.6–0.9)	0.7 (0.6–0.9)	0.5 (0.5–0.6)	0.7 (0.6–0.9)	—	
Counsel/advice – health/body*	0.1 (0.1–0.1)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.3–0.4)	0.2 (0.2–0.3)	0.4 (0.3–0.5)	↑	

(continued)

Table 10.1a (continued): The most frequent clinical treatments (rate per 100 problems), 2006–07 to 2015–16

Treatment	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑↓ ^(a)
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)	
Counsel/advice – smoking*	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)
Total clinical treatments	19.9 (18.7–21.1)	22.9 (21.6–24.1)	22.0 (20.8–23.2)	22.9 (21.4–24.4)	23.4 (21.9–24.8)	24.1 (22.7–25.5)	23.7 (22.2–25.1)	23.8 (22.5–25.2)	21.8 (20.6–23.1)	25.0 (23.5–26.5)	25.0 (23.5–26.5)	25.0 (23.5–26.5)

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

* Includes multiple ICP-2 or ICP-2 PLUS codes (see Appendix 4, Table A4.3, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; NEC – not elsewhere classified; excl – excluding. This table includes individual problems that had clinical treatments given at a rate of more than or equal to 0.5 per 100 encounters in any year, and any other statistically significant differences of interest.

Table 10.1b: The most frequent clinical treatments (rate per 100 encounters), 2006–07 to 2015–16

Treatment	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑↓ ^(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)	
Advice/education NEC*	5.7 (5.0–6.5)	7.2 (6.3–8.1)	6.1 (5.4–6.9)	6.2 (5.3–7.1)	6.0 (5.1–6.8)	5.9 (5.2–6.6)	5.8 (4.9–6.6)	6.2 (5.3–7.1)	6.1 (5.3–6.9)	6.3 (5.3–7.3)	6.3 (5.3–7.3)	6.3 (5.3–7.3)
Counselling – problem*	4.4 (3.7–5.0)	4.3 (3.8–4.9)	3.8 (3.3–4.4)	4.3 (3.7–5.0)	5.3 (4.4–6.2)	4.6 (3.8–5.4)	5.0 (4.3–5.7)	4.6 (4.0–5.2)	4.2 (3.6–4.8)	4.9 (4.2–5.6)	4.9 (4.2–5.6)	4.9 (4.2–5.6)
Advice/education – treatment*	2.8 (2.5–3.1)	3.5 (3.1–3.8)	3.5 (3.1–4.0)	3.9 (3.3–4.5)	3.4 (2.9–3.8)	3.9 (3.5–4.3)	3.7 (3.3–4.1)	3.8 (3.4–4.3)	3.3 (2.9–3.7)	4.4 (3.9–4.8)	4.4 (3.9–4.8)	4.4 (3.9–4.8)
Counsel/advice – nutrition/weight*	3.4 (3.0–3.7)	4.2 (3.8–4.6)	4.1 (3.6–4.5)	3.7 (3.4–4.1)	4.0 (3.5–4.4)	4.0 (3.6–4.4)	3.8 (3.3–4.2)	3.9 (3.5–4.3)	3.0 (2.7–3.4)	3.8 (3.3–4.3)	3.8 (3.3–4.3)	3.8 (3.3–4.3)
Counselling – psychological*	2.9 (2.6–3.1)	3.2 (2.9–3.4)	3.2 (3.0–3.5)	3.4 (3.2–3.7)	3.2 (3.0–3.5)	3.3 (3.0–3.6)	3.1 (2.9–3.4)	3.4 (3.1–3.7)	3.1 (2.8–3.3)	3.1 (2.8–3.4)	3.1 (2.8–3.4)	3.1 (2.8–3.4)
Advice/education – medication*	1.8 (1.6–2.0)	2.0 (1.8–2.2)	2.3 (2.1–2.6)	2.4 (2.2–2.6)	2.7 (2.5–3.0)	3.2 (2.9–3.5)	3.2 (2.9–3.5)	3.4 (3.1–3.7)	2.8 (2.6–3.1)	3.1 (2.8–3.3)	3.1 (2.8–3.3)	3.1 (2.8–3.3)

(continued)

Table 10.1b (continued): The most frequent clinical treatments (rate per 100 encounters), 2006–07 to 2015–16

Treatment	Rate per 100 encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Other administrative procedure/document (excl. sickness certificate)*	1.3 (1.2–1.4)	1.6 (1.4–1.7)	1.9 (1.7–2.0)	2.1 (1.9–2.3)	2.0 (1.8–2.2)	2.3 (2.0–2.5)	2.6 (2.3–2.8)	2.9 (2.6–3.1)	2.3 (2.1–2.5)	2.6 (2.3–2.8)	↑	
Sickness certificate*	1.6 (1.3–1.8)	1.7 (1.4–2.0)	1.9 (1.6–2.2)	1.4 (1.2–1.6)	1.6 (1.4–1.8)	1.8 (1.5–2.0)	1.8 (1.5–2.1)	1.5 (1.3–1.7)	1.6 (1.3–1.8)	1.6 (1.4–1.8)	—	
Reassurance, support	1.1 (0.9–1.3)	1.4 (1.2–1.6)	1.5 (1.3–1.8)	1.4 (1.1–1.7)	1.3 (1.1–1.5)	1.5 (1.3–1.8)	1.3 (1.1–1.5)	1.3 (1.1–1.5)	1.4 (1.2–1.7)	1.5 (1.3–1.7)	↑	
Counsel/advice – lifestyle*	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.2 (0.1–0.3)	0.5 (0.4–0.7)	0.5 (0.4–0.6)	0.8 (0.6–0.9)	0.7 (0.5–0.8)	0.6 (0.5–0.8)	0.9 (0.7–1.0)	1.3 (1.0–1.5)	↑	
Counsel/advice – exercise*	1.1 (1.0–1.3)	1.3 (1.1–1.5)	1.4 (1.2–1.6)	1.2 (1.0–1.4)	1.4 (1.1–1.6)	1.3 (1.1–1.5)	1.1 (0.9–1.3)	1.2 (1.0–1.4)	0.8 (0.7–1.0)	1.1 (0.9–1.3)	—	
Counsel/advice – health/body*	0.2 (0.1–0.2)	0.3 (0.2–0.4)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.5 (0.3–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.4)	0.6 (0.5–0.8)	↑	
Counsel/advice – smoking*	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	§	
Total clinical treatments	29.6 (27.7–31.5)	34.6 (32.6–36.6)	34.1 (32.1–36.0)	35.1 (32.6–37.5)	35.6 (33.3–38.0)	37.1 (34.7–39.4)	36.6 (34.3–39.0)	37.7 (35.4–40.0)	33.9 (31.8–36.0)	38.6 (36.1–41.0)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.3, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; NEC – not elsewhere classified; excl – excluding. This table includes individual problems that had clinical treatments given at a rate of more than or equal to 0.5 per 100 encounters in any year, and any other statistically significant differences of interest.

Table 10.2: The most common problems managed with clinical treatments, 2006–07 to 2015–16

Problem managed	Rate at which a selected problem was managed with one or more clinical treatments, per 100 encounters (95% CI)											↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Upper respiratory infection, acute	1.4 (1.3–1.6)	1.8 (1.6–2.0)	1.7 (1.5–1.9)	1.9 (1.6–2.2)	1.7 (1.4–1.9)	1.7 (1.5–1.9)	2.0 (1.6–2.3)	1.6 (1.4–1.8)	1.8 (1.6–2.1)	1.9 (1.7–2.1)	↑	
Depression*	1.5 (1.4–1.6)	1.8 (1.6–1.9)	1.8 (1.7–2.0)	1.9 (1.7–2.1)	1.8 (1.6–1.9)	1.8 (1.6–2.0)	1.7 (1.5–1.8)	1.9 (1.7–2.1)	1.7 (1.5–1.8)	1.7 (1.5–1.8)	–	
Diabetes – all*	0.8 (0.7–0.9)	0.9 (0.8–1.0)	1.1 (0.9–1.2)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.0–1.3)	1.2 (1.1–1.4)	1.0 (0.9–1.1)	1.2 (1.1–1.4)	↑	
Hypertension*	0.9 (0.8–1.0)	1.2 (1.1–1.4)	1.1 (1.0–1.2)	1.0 (0.8–1.1)	1.1 (0.9–1.3)	1.1 (1.0–1.3)	1.0 (0.9–1.2)	1.1 (0.9–1.2)	0.9 (0.7–1.0)	1.1 (0.9–1.3)	–	
Anxiety*	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	1.1 (1.0–1.2)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	↑	
Lipid disorders*	0.8 (0.7–0.8)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	–	
Gastroenteritis*	0.7 (0.6–0.7)	0.8 (0.7–0.9)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	–	
Back complaint*	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	↑	
Test results*	0.4 (0.3–0.4)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	↑	
Administrative procedure NOS	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.6 (0.5–0.7)	↑	
General check-up*	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	↑	
Acute stress reaction	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	↑	
Viral disease, other/NOS	0.4 (0.3–0.4)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	↑	
Sleep disturbance	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.5)	↑	

(continued)

Table 10.2 (continued): The most common problems managed with clinical treatments, 2006–07 to 2015–16

Problem managed	Rate at which a selected problem was managed with one or more clinical treatments, per 100 encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	↑/↓	
Obesity (BMI > 30)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.5 (0.4–0.5)	0.4 (0.3–0.4)	0.5 (0.4–0.6)	—	
Asthma	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	↑	
Osteoarthritis*	0.3 (0.2–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	↑	
Total problems with clinical treatments	26.8 (25.2–28.5)	31.3 (29.5–33.0)	30.9 (29.3–32.6)	31.6 (29.6–33.6)	31.9 (29.9–33.9)	33.0 (31.0–35.0)	32.6 (30.7–34.6)	33.9 (31.9–35.8)	30.9 (29.0–32.7)	34.7 (32.6–36.8)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; NOS – not otherwise specified; BMI – body mass index. This table includes individual problems that had clinical treatments given at a rate of more than or equal to 0.5 per 100 encounters in any year, and any other statistically significant differences of interest.

Table 10.3a: The most frequent procedural treatments (rate per 100 problems), 2006–07 to 2015–16

Treatment	Rate per 100 problems (95% CI)										2015–16 (n = 150,279)	↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	2.1 (1.9–2.4)	2.2 (2.0–2.4)	2.0 (1.8–2.2)	1.9 (1.7–2.0)	1.8 (1.7–2.0)	1.7 (1.6–1.9)	1.9 (1.7–2.0)	2.0 (1.8–2.2)	1.9 (1.7–2.1)	2.0 (1.8–2.2)	2.0 (1.8–2.2)	—
Local injection/ infiltration ^(b)	1.3 (1.2–1.4)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.6 (1.5–1.8)	1.6 (1.4–1.8)	1.4 (1.3–1.5)	1.5 (1.4–1.7)	1.6 (1.5–1.8)	1.5 (1.4–1.6)	1.7 (1.5–1.8)	1.7 (1.5–1.8)	↑
Dressing/pressure/ compression/tamponade*	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.5 (1.4–1.6)	1.6 (1.4–1.7)	1.7 (1.5–1.8)	1.7 (1.5–1.8)	1.6 (1.4–1.7)	1.8 (1.7–1.9)	1.6 (1.5–1.7)	1.6 (1.5–1.7)	1.6 (1.5–1.8)	—
Physical medicine/ rehabilitation – all*	0.7 (0.6–0.9)	0.8 (0.7–1.0)	0.8 (0.7–0.9)	0.8 (0.7–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.1)	0.9 (0.7–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.1)	—
Incision/drainage/flushing/ aspiration/removal body fluid*	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	↓
Check-up – PNA/HW*	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	0.4 (0.2–0.7)	0.4 (0.2–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.6 (0.2–1.1)	↑
Pap smear*	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	—
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↓
Other preventive procedures/high-risk medication*	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	↑
Other therapeutic procedures/minor surgery*	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.7 (0.3–1.1)	0.5 (0.4–0.7)	0.6 (0.5–0.7)	0.7 (0.5–0.8)	0.5 (0.4–0.6)	0.5 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	—
INR test	0.1 (0.0–0.1)	0.2 (0.2–0.3)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	↑
Electrical tracings*	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	—

(continued)

Table 10.3a (continued): The most frequent procedural treatments (rate per 100 problems), 2006–07 to 2015–16

Treatment	Rate per 100 problems (95% CI)											2015–16 (n = 150,279)	↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)		
Physical function test*	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	↓
Total procedural treatments	10.2 (9.7–10.7)	11.0 (10.4–11.5)	10.8 (10.3–11.2)	11.4 (10.7–12.1)	11.0 (10.5–11.5)	11.0 (10.5–11.5)	11.2 (10.6–11.7)	11.8 (11.3–12.4)	10.9 (10.5–11.4)	10.9 (10.5–11.4)	11.4 (10.8–12.1)	11.4 (10.8–12.1)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Excludes all local injection/infiltrations performed for immunisations.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Tables A4.4 and A4.5, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; INR – international normalised ratio; PN – practice nurse; ARHW – Aboriginal health worker. This table includes individual problems that had clinical treatments given at a rate of more than or equal to 0.5 per 100 encounters in any year, and any other statistically significant differences of interest.

Table 10.3b: The most frequent procedural treatments (rate per 100 encounters), 2006–07 to 2015–16

Treatment	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	3.2 (2.9–3.5)	3.3 (3.0–3.7)	3.1 (2.8–3.3)	2.9 (2.6–3.1)	2.8 (2.5–3.0)	2.7 (2.5–2.9)	2.9 (2.6–3.2)	3.2 (2.9–3.5)	3.0 (2.7–3.2)	3.0 (2.7–3.2)	3.1 (2.8–3.3)	3.1 (2.8–3.3)	—
Local injection/ infiltration ^(b)	1.9 (1.7–2.1)	2.3 (2.1–2.5)	2.3 (2.1–2.4)	2.5 (2.3–2.7)	2.4 (2.2–2.7)	2.2 (2.0–2.4)	2.3 (2.1–2.6)	2.6 (2.3–2.8)	2.3 (2.2–2.5)	2.3 (2.2–2.5)	2.5 (2.3–2.8)	2.5 (2.3–2.8)	↑
Dressing/pressure/ compression/tamponade*	2.3 (2.1–2.4)	2.2 (2.1–2.4)	2.3 (2.1–2.4)	2.4 (2.2–2.6)	2.5 (2.4–2.7)	2.5 (2.3–2.7)	2.4 (2.2–2.6)	2.9 (2.6–3.1)	2.5 (2.3–2.6)	2.5 (2.3–2.6)	2.5 (2.4–2.7)	2.5 (2.4–2.7)	↑
Physical medicine/ rehabilitation – all*	1.1 (0.9–1.3)	1.3 (1.1–1.5)	1.2 (1.1–1.3)	1.2 (1.0–1.5)	1.2 (1.1–1.4)	1.4 (1.2–1.6)	1.4 (1.2–1.7)	1.4 (1.2–1.6)	1.2 (1.1–1.4)	1.2 (1.1–1.4)	1.4 (1.2–1.6)	1.4 (1.2–1.6)	—
Incision/drainage/flushing/ aspiration/removal body fluid*	1.3 (1.1–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.4 (1.2–1.5)	1.2 (1.1–1.3)	1.2 (1.0–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	↓

(continued)

Table 10.3b (continued): The most frequent procedural treatments (rate per 100 encounters), 2006–07 to 2015–16

Treatment	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Check-up – PN/AHW*	0.2 (0.1–0.3)	0.4 (0.3–0.4)	0.4 (0.2–0.5)	0.7 (0.3–1.0)	0.6 (0.4–0.7)	0.6 (0.4–0.7)	0.7 (0.5–0.8)	0.6 (0.5–0.8)	0.6 (0.5–0.8)	0.6 (0.5–0.8)	1.0 (0.3–1.6)	↑	
Pap smear*	0.9 (0.8–1.0)	1.1 (0.9–1.2)	1.2 (1.0–1.3)	1.0 (0.9–1.2)	1.0 (0.8–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	1.0 (0.8–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	—	
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	—	
Other preventive procedures/high-risk medication*	0.2 (0.2–0.3)	0.3 (0.3–0.4)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.6 (0.5–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	↑	
Other therapeutic procedures/minor surgery*	0.9 (0.7–1.0)	0.9 (0.7–1.1)	1.1 (0.9–1.2)	1.1 (0.5–1.7)	0.8 (0.6–1.0)	0.9 (0.7–1.1)	1.0 (0.8–1.2)	0.8 (0.6–0.9)	0.8 (0.6–1.0)	0.8 (0.6–0.9)	0.7 (0.6–0.9)	—	
INR test	0.1 (0.1–0.2)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.6 (0.4–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.6–0.9)	0.8 (0.7–1.0)	0.7 (0.6–0.9)	0.7 (0.6–0.9)	0.7 (0.6–0.8)	↑	
Electrical tracings*	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.7 (0.6–0.7)	0.6 (0.5–0.6)	0.8 (0.7–0.9)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.6 (0.5–0.6)	↑	
Physical function test*	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	—	
Total procedural treatments	15.1 (14.3–15.9)	16.6 (15.8–17.5)	16.7 (16.0–17.4)	17.5 (16.4–18.5)	16.8 (16.0–17.7)	16.8 (16.0–17.7)	17.3 (16.4–18.2)	18.7 (17.9–19.6)	17.0 (16.2–17.8)	17.0 (16.6–18.7)	17.6 (16.6–18.7)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Excludes all local injection/infiltrations performed for immunisations.

* Includes multiple ICP-C-2 or ICP-C-2 PLUS codes (see Appendix 4, Tables A4.4 and A4.5, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; INR – international normalised ratio; PN – practice nurse; AHW – Aboriginal health worker. This table includes individual problems that had clinical treatments given at a rate of more than or equal to 0.5 per 100 encounters in any year, and any other statistically significant differences of interest.

Table 10.4: The most common problems managed with procedural treatments, 2006–07 to 2015–16

Problem managed	Rate at which a selected problem was managed with one or more procedural treatments, per 100 encounters (95% CI)										
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	
Laceration/cut	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	↑
Female genital check-up/ Pap smear*	0.8 (0.7–0.9)	0.9 (0.8–1.0)	1.1 (0.9–1.2)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–1.0)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	—
Solar keratosis/sunburn	0.9 (0.8–1.0)	0.9 (0.8–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.8 (0.6–0.9)	0.9 (0.7–1.0)	0.8 (0.7–1.0)	0.7 (0.6–0.8)	↓
Excessive ear wax	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	—
Warts	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.6 (0.5–0.6)	—
General check-up*	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	↑
Malignant neoplasm of skin	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.7 (0.5–0.8)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	—
Chronic ulcer skin (including varicose ulcer)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	—
Atrial fibrillation/flutter	0.1 (0.1–0.1)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.2–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	↑
Total problems with procedures	14.3 (13.5–15.0)	15.6 (14.8–16.3)	15.6 (14.9–16.2)	16.3 (15.4–17.2)	15.8 (15.0–16.5)	15.7 (15.0–16.4)	16.2 (15.4–17.0)	17.6 (16.8–18.3)	16.0 (15.3–16.8)	16.5 (15.6–17.4)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-2 or ICP-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval. This table includes individual problems that had procedural treatments given at a rate of more than or equal to 0.5 per 100 encounters in any year, and any other statistically significant differences of interest.

11 Referrals and admissions

A referral is defined as the process by which the responsibility for part, or all, of the care of a patient is temporarily transferred to another health care provider. GPs were instructed only to record new referrals arising at the encounter (that is, not to record continuations). For each encounter, GPs could record up to two referrals, and each referral was linked by the GP to the problem(s) for which the patient was referred. Referrals included those to medical specialists, allied health services, hospitals for admission, emergency departments, and to other services (including outpatient clinics and other GPs).

Referral data for the 10 years from 2006–07 to 2015–16, are reported in two ways: as rates per 100 problems managed (Table 11.1a); and as rates per 100 encounters (Table 11.1b). In describing changes over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase in the average number of problems managed per encounter over the study period reported here.

The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: \uparrow/\downarrow indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; \uparrow/\downarrow indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade. Significant changes in the rate per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2006–07 and 2015–16. Examples of extrapolated change are given. The method used to extrapolate is described in Section 2.9.

The number of GP–patient encounters claimed through the Medicare Benefits Schedule nationally increased by 38.3% between 2006–07 (103.4 million encounters) and 2015–16 (143.0 million encounters).^{6,9} As a result, a decreased rate of a particular ‘measured event’ per 100 encounters may occasionally yield a national increase in the estimated number of events.

More specific analyses of referrals recorded by participating GPs in the 2015–16 BEACH year can be found in the companion report, *General practice activity in Australia 2015–16*.¹

11.1 Results

Figure 11.1 illustrates the proportion of encounters and problems managed where one or more referrals were made, and referral rates per 100 encounters and per 100 problems, over the decade. As described in detail below, there was an increase in the likelihood that GP–patient encounters would involve one or more referrals, and that a problem being managed at encounter would be referred. There were also significant increases in the overall rates of referrals per 100 encounters and per 100 problems managed.

The likelihood that a problem being managed at encounter would be referred, increased significantly over the study period, with 8.3% of problems referred in 2006–07 and 10.3% in 2015–16. There was a significant increase in the overall rate of referrals, from 8.2 per 100 problems managed in 2006–07 to 10.4 per 100 in 2015–16, largely due to increased referral rates to medical specialists and to allied health professionals (Table 11.1a).

The rate of referral to medical specialists per 100 problems managed increased from 5.4 in 2006–07 to 6.2 per 100 in 2015–16. There was a significant decrease in the rate of referrals to ophthalmologists, and marginally significant increases in referrals to dermatologists, cardiologists and psychiatrists. The significant increase in the overall referral rate to specialists reflects a slight increase across many specialist types.

The rate of referral to allied health services per 100 problems managed increased from 2.1 in 2006–07 to 3.6 per 100 in 2015–16 (an increase of 71%). Strong contributions to the overall rate arose from a two and a half-fold increase in referrals to psychologists (from 0.3 to 0.8 per 100 problems) and a doubling of the rate of referrals to podiatrists/chiropractors (from 0.2 to 0.4). Referrals to physiotherapists and dietitians/nutritionists also increased (Table 11.1a).

Table 11.1b also shows that over time there was an increased likelihood that GP–patient encounters would involve one or more referrals (11.5% involving a referral in 2006–07 and 14.7% in 2015–16). Overall, referrals increased significantly from 12.2 per 100 encounters in 2006–07, to 16.1 per 100 in 2015–16. Extrapolation of this change suggests there were about 10.4 million more GP referrals nationally in 2015–16 than in 2006–07. These referrals included about 5.2 million more referrals to medical specialists and about 4.8 million more to allied health services. Of these 4.8 million additional allied health referrals, 1.4 million were to psychologists, probably largely due to the government’s introduction of the Better Outcomes⁴⁴ and later the Better Access⁴⁵ mental health programs. There were also about 1.2 million more referrals to physiotherapists, which may be due to more patients with chronic disease or due to government policy, such as the introduction of MBS item numbers for a limited number of physiotherapy services for selected patients referred by a GP.⁴³

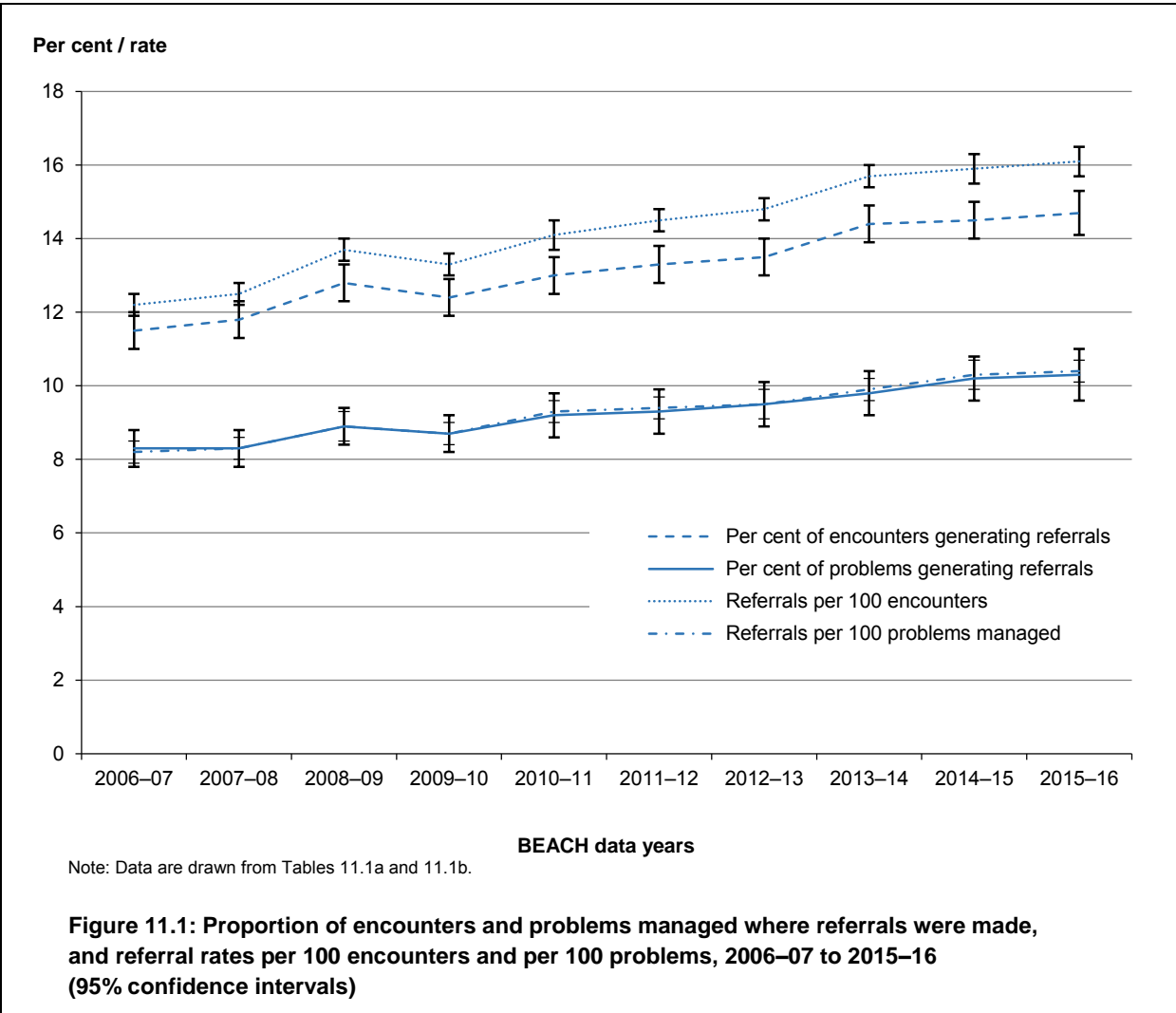


Table 11.1a: The most frequent referrals (rate per 100 problems), 2006–07 to 2015–16

Referral	Rate per 100 problems (95% CI)											↑ ^(a) ↓
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 152,279)	2015–16 (n = 150,279)		
At least one referral	8.3 (8.0–8.6)	8.3 (8.0–8.6)	8.9 (8.5–9.2)	8.7 (8.4–9.0)	9.2 (8.9–9.5)	9.3 (9.0–9.7)	9.5 (9.1–9.8)	9.8 (9.5–10.2)	10.2 (9.8–10.5)	10.3 (10.0–10.7)	↑	
Medical specialist*	5.4 (5.2–5.7)	5.3 (5.1–5.5)	5.8 (5.6–6.0)	5.5 (5.3–5.7)	5.6 (5.4–5.9)	5.6 (5.3–5.8)	5.7 (5.5–6.0)	6.0 (5.8–6.3)	6.2 (5.9–6.4)	6.2 (5.9–6.4)	↑	
Orthopaedic surgeon	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	–	
Dermatologist	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	↑	
Surgeon	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.5)	–	
Cardiologist	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	↑	
Ophthalmologist	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.4)	↔	
Gastroenterologist	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	–	
Ear, nose and throat	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	–	
Gynaecologist	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.3)	0.3 (0.3–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.3)	–	
Urologist	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	–	
Psychiatrist	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	↑	
Paediatrician	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.2)	–	
Neurologist	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	–	

(continued)

Table 11.1a (continued): The most frequent referrals (rate per 100 problems), 2006–07 to 2015–16

Referral	Rate per 100 problems (95% CI)											(a)
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)		
Clinic/centre	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—
Endocrinologist	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	—
Rheumatologist	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	—
Allied health services*	2.1 (1.9–2.2)	2.3 (2.1–2.4)	2.5 (2.3–2.7)	2.6 (2.4–2.7)	2.8 (2.6–2.9)	3.0 (2.8–3.2)	3.0 (2.8–3.2)	3.1 (2.9–3.3)	3.3 (3.1–3.5)	3.3 (3.1–3.5)	3.6 (3.4–3.9)	↑
Physiotherapy	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.7 (0.7–0.8)	0.7 (0.7–0.8)	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (1.0–1.1)	↑
Psychologist	0.3 (0.2–0.3)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↑
Podiatrist/chiroprapist	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	↑
Dietitian/nutritionist	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.3–0.4)	↑
Dentist	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—
Hospital*	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	—
Emergency department*	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	—
Other referrals*	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	↓
Total referrals	8.2 (7.9–8.5)	8.3 (8.0–8.6)	8.9 (8.6–9.2)	8.7 (8.4–9.0)	9.3 (8.9–9.6)	9.4 (9.1–9.8)	9.5 (9.2–9.9)	9.9 (9.6–10.2)	10.3 (9.9–10.6)	10.3 (10.0–10.8)	10.4 (10.0–10.8)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-C-2 or ICP-C-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/15482>).

Table 11.1b: The most frequent referrals (rate per 100 encounters), 2006–07 to 2015–16

Referral	Rate per 100 encounters (95% CI)										
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	
At least one referral	11.5 (11.0–11.9)	11.8 (11.3–12.2)	12.8 (12.3–13.2)	12.4 (11.9–12.9)	13.0 (12.5–13.5)	13.3 (12.8–13.8)	13.5 (13.0–14.1)	14.4 (13.9–14.9)	14.5 (14.0–15.1)	14.7 (14.1–15.3)	↑
Medical specialist*	8.1 (7.7–8.4)	8.0 (7.6–8.3)	9.0 (8.7–9.3)	8.4 (8.1–8.8)	8.6 (8.2–9.0)	8.6 (8.2–8.9)	8.9 (8.5–9.3)	9.5 (9.1–9.9)	9.6 (9.2–10.0)	9.5 (9.1–9.9)	↑
Orthopaedic surgeon	0.7 (0.7–0.8)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–0.9)	↑
Dermatologist	0.6 (0.5–0.7)	0.7 (0.6–0.7)	0.7 (0.7–0.8)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	↑
Surgeon	0.8 (0.8–0.9)	0.8 (0.8–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.8–0.9)	0.8 (0.7–0.8)	–
Cardiologist	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	↑
Ophthalmologist	0.8 (0.7–0.9)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	↓
Gastroenterologist	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.7)	0.6 (0.5–0.6)	↑
Ear, nose and throat	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	–
Gynaecologist	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	–
Urologist	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	–
Psychiatrist	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	↑
Paediatrician	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	–

(continued)

Table 11.1b (continued): The most frequent referrals (rate per 100 encounters), 2006–07 to 2015–16

Referral	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398) ↑↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Neurologist	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	—
Clinic/centre	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	↑
Allied health services*	3.1 (2.9–3.3)	3.4 (3.2–3.7)	3.9 (3.6–4.1)	3.9 (3.7–4.2)	4.2 (3.9–4.5)	4.7 (4.4–5.0)	4.7 (4.4–5.0)	4.9 (4.6–5.2)	5.2 (4.9–5.5)	5.2 (4.9–5.5)	5.6 (5.2–6.0)	↑
Physiotherapy	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.4 (1.3–1.6)	1.4 (1.3–1.6)	1.6 (1.5–1.8)	↑
Psychologist	0.4 (0.4–0.5)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	1.1 (1.0–1.2)	1.3 (1.1–1.4)	1.3 (1.1–1.4)	1.3 (1.1–1.4)	↑
Podiatrist/chiropracist	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	↑
Dietitian/nutritionist	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (0.4–0.6)	↑
Dentist	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.2–0.3)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—
Hospital*	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	—
Emergency department*	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↑
Other referrals*	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.3 (0.2–0.4)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.3–0.5)	↓
Total referrals	12.2 (11.7–12.7)	12.5 (12.0–13.0)	13.7 (13.2–14.2)	13.3 (12.8–13.8)	14.1 (13.5–14.7)	14.5 (13.9–15.1)	14.8 (14.2–15.4)	15.7 (15.1–16.3)	15.9 (15.3–16.5)	15.9 (15.3–16.5)	16.1 (15.4–16.7)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; — indicates a marginally significant change in 2015–16 compared with 2006–07; ↓ indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-C-2 or ICP-C-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/15482>).

Note: CI – confidence interval.

12 Investigations

Investigations ordered by GPs or undertaken in the practice for each of the 10 years from 2006–07 to 2015–16, are reported in two ways: as rates per 100 problems managed (for example, Table 12.2a) and as rates per 100 encounters (for example, Table 12.2b). In the text describing changes over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase over the decade in the number of problems managed per encounter.

The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

Significant changes in the rate per 100 encounters can be extrapolated to estimate the national increase or decrease in the number of investigations ordered between 2006–07 and 2015–16. Examples of extrapolated change are given, and the method used is described in Section 2.9.

The GPs participating in BEACH were asked to record (in free text) any pathology, imaging or other tests ordered or done at the encounter, and to nominate the patient problem(s) associated with each test order. This allows a test order to be linked to a single problem or multiple problems. Up to five orders for pathology and two for imaging and other tests could be recorded at each encounter. A single test may have been ordered for the management of multiple problems, and multiple tests may have been used in the management of a single problem.

A pathology test order may be for a single test (for example, Pap smear, HbA1c) or for a battery of tests (for example, lipids, full blood count). Where a battery of tests was ordered, the battery name was recorded rather than each individual test. GPs also recorded the body site for any imaging ordered (for example, x-ray chest, computerised tomography head).

More detailed analyses of investigations ordered by GPs in 2015–16 can be found in Chapter 12 of *General practice activity in Australia 2015–16*.¹

Comprehensive investigation of GPs' pathology and imaging ordering using BEACH data has been published in several reports. Interested readers may wish to consult:

- a comprehensive report on pathology ordering by GPs in Australia in 1998, published on the internet by the then Department of Health and Aged Care⁴⁶
- a report on imaging orders by GPs in Australia in 1999–2000, published as an AIHW–University of Sydney book in the GP series in 2001⁴⁷
- a report on changes in pathology ordering by GPs from 1998 to 2001, published as an AIHW–University of Sydney book in the GP series in 2003⁴⁸
- a review of pathology ordering in the National Health Priority Areas and other selected problems from 2000 to 2008, in *General practice in Australia, health priorities and policies 1998 to 2008*⁴⁹
- the report *Evidence-practice gap in GP pathology test ordering: a comparison of BEACH pathology data and recommended testing*, prepared for the Australian Government Quality Use of Pathology Program in June 2009⁵⁰
- a 2013 PhD thesis, *Evaluation of pathology ordering by general practitioners in Australia*⁵¹
- the 2014 report, *Evaluation of imaging ordering by general practitioners in Australia 2002–03 to 2011–12*, which described changes in GPs' imaging ordering over time and evaluated the alignment between guidelines and GP test ordering for selected problems.⁵² This was funded by a grant from the Diagnostic Imaging Quality Program, Australian Government Department of Health.

12.1 Pathology ordering

There was no change in the proportion of problems for which GPs ordered pathology, with at least one pathology test ordered for 13.4% of all problems managed in 2006–07 and 13.7% in 2015–16 (Table 12.1a). Similarly, there was no change in the proportion of encounters involving at least one pathology test over the decade (17.4% of encounters in 2006–07 and 18.4% in 2015–16) (Table 12.1b).

Readers should be aware that even with no change in GPs' likelihood of ordering pathology tests, there was growth in the number of encounters involving pathology as the number of GP–patient encounters in Australia has increased from 103.4 to 143.0 million over the decade.^{6,9} The effect of this increase can be demonstrated by extrapolating the likelihood of pathology being ordered at encounters: in 2015–16 we estimate 26.3 million encounters involved pathology orders compared with 18.0 million in 2006–07, an increase of 8.3 million over the decade.

Figure 12.1 shows graphically the likelihood of ordering pathology at encounters and for problems, and the increased numbers of total pathology orders per 100 problems and per 100 encounters, over the 10 years to 2015–16.

The number of pathology tests (or batteries of tests) ordered, increased from 28.6 per 100 problems managed in 2006–07 to 30.8 per 100 problems in 2015–16 (Table 12.2a). The number of tests ordered per 100 encounters increased from 42.4 tests (or batteries of tests) per 100 encounters in 2006–07 to 47.6 in 2015–16 (Table 12.2b), which, when combined with the increase in GP attendance rate, extrapolates to approximately 24.2 million more tests (or batteries of tests) ordered in 2015–16 than in 2006–07 nationally.

Readers should consider the impact of the changes in the number and types of problems managed on the rates of pathology tests ordered by GPs. For example, the number of problems managed rose from 148.5 to 154.3 per 100 encounters (reported in Chapter 5), and has contributed to the increased testing rate per 100 encounters.

In summary, the national increase in number of pathology tests ordered by GPs in Australia is not due to any change in the likelihood of GPs' ordering pathology for a problem or at an encounter. Rather, it is due to the combined effect of:

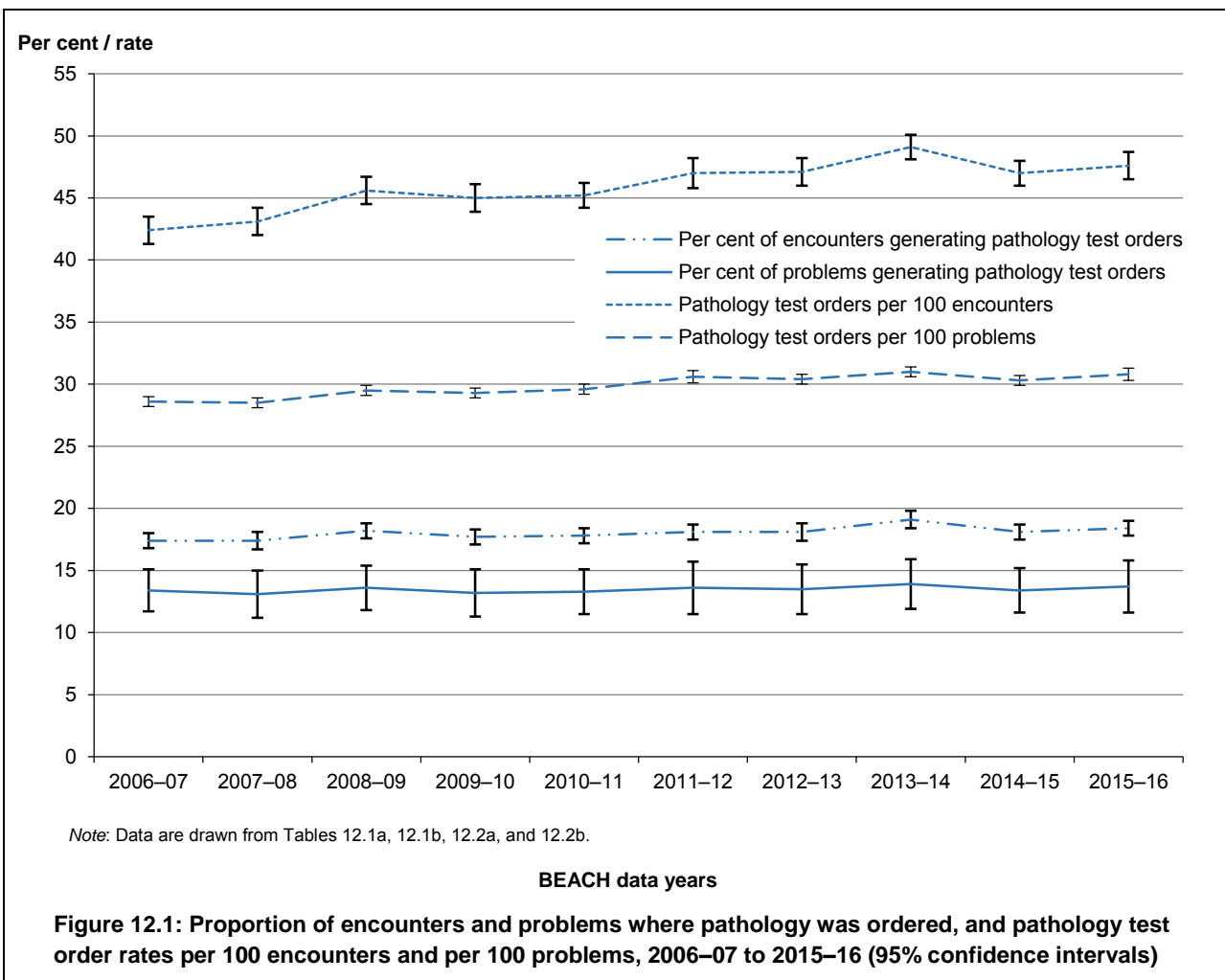
- the increased number of tests ordered when the decision to test was made, rising from an average 2.21 tests/batteries per tested problem in 2006–07¹² to 2.35 in 2015–16¹
- the increased number of problems managed per encounter, rising from 148.5 to 154.3 per 100 encounters over the decade (see Chapter 5)
- the increased GP attendance rate in Australia.^{6,9}

Pathology test orders by MBS groups

Tables 12.2a and 12.2b show the changes in the distribution of tests ordered by MBS pathology groups.⁵³

There were marginal increases in the rate of chemistry, immunology and 'simple' tests per 100 problems managed. Order rates in all other test groups did not change over the decade (Table 12.2a).

Orders for chemistry tests increased from 24.5 to 27.9 per 100 encounters, an increase of 14%. This extrapolates to an estimated 14.6 million more chemistry test orders nationally in 2015–16 than 10 years earlier. Immunology tests increased from 0.7 to 0.9 per 100 encounters, extrapolating to an increase of about 560,000 additional test orders nationally in 2015–16 compared with a decade earlier. There were also marginal increases in tissue pathology and simple tests, and no changes in the other test groups (Table 12.2b).



12.2 Imaging ordering

Table 12.1a shows there was a significant increase in the proportion of problems for which imaging was ordered, from 5.5% in 2006–07 to 6.4% in 2015–16. Between 2006–07 and 2015–16, the number of problems managed per 100 encounters rose from 148.5 to 154.3 (Table 5.1). Both the rise in the proportion of problems generating imaging orders and the rise in the number of problems managed per encounter contributed to an overall increase in the proportion of encounters involving an imaging test (Table 12.1b). This increased from 7.9% in 2006–07 to 9.4% in 2015–16, resulting in an estimated 5.3 million more encounters nationally at which imaging was ordered in 2015–16 than in 2006–07.

Total imaging test orders increased significantly from 6.0 per 100 problems managed in 2006–07 to 7.1 per 100 in 2015–16. The rate of imaging test orders per 100 encounters also increased significantly from 9.0 in 2006–07 to 11.0 in 2015–16 (Table 12.3b), an increase of 22%, equating to approximately 6.4 million more imaging orders nationally in 2015–16 than 10 years earlier.

Figure 12.2 provides a graphical view of the change in the likelihood of GPs ordering imaging and the increases in the rates of imaging tests ordered per 100 problems and per 100 encounters over the 10 years to 2015–16.

Imaging test orders by MBS group

Tables 12.3a and 12.3b show the changes in imaging orders by MBS imaging group from 2006–07 to 2015–16. There were changes in the types of imaging tests ordered, with a move away from diagnostic radiology toward ultrasound imaging. The rate of ultrasound orders increased by 52% over the decade, from 2.1 tests per 100 problems in 2006–07 to 3.2 per 100 in 2015–16. In contrast, the rate of diagnostic radiology marginally decreased (from 3.1 to 2.8 per 100 problems).

There was also a significant increase in the order rate of magnetic resonance imaging (from less than 0.05 per 100 problems in 2006–07 to 0.3 in 2015–16), and a marginal increase in the rate of computerised tomography (from 0.7 to 0.8 per 100 problems). The order rate of nuclear medicine decreased marginally over the decade (Table 12.3a).

Ultrasound imaging orders increased from 3.2 tests per 100 encounters in 2006–07 to 4.9 per 100 in 2015–16, a national increase of about 3.7 million ultrasound orders in 2015–16 than a decade earlier. Magnetic resonance imaging orders increased from less than 0.05 per 100 encounters in 2006–07 to 0.5 in 2015–16. The order rate of computerised tomography increased marginally. Order rates of diagnostic radiology and nuclear medicine did not change over this period (Table 12.3b).

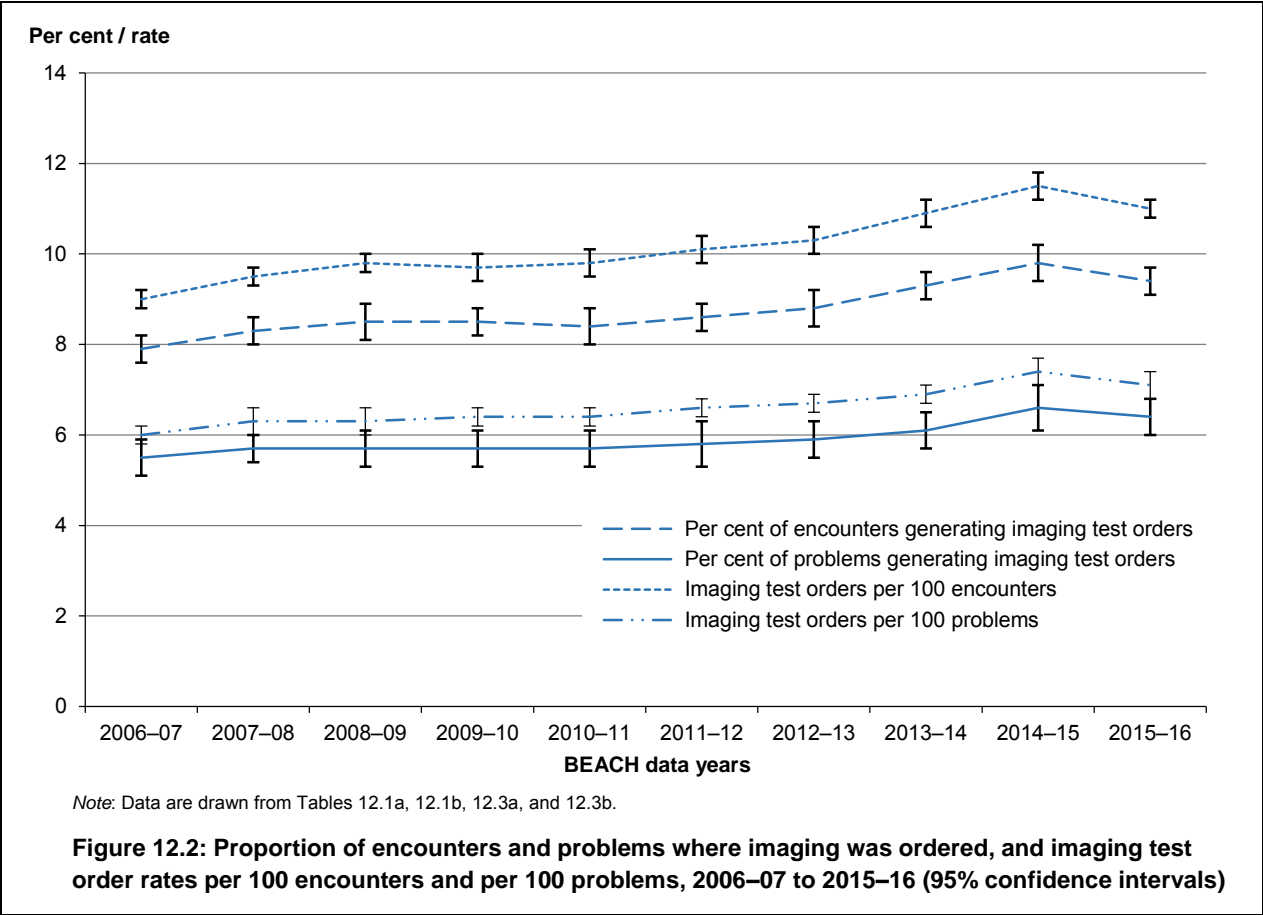


Table 12.1a: Problems for which pathology or imaging was ordered (per cent of problems), 2006–07 to 2015–16

Test ordered	Per cent of problems (95% CI)										
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	(a)
At least one pathology test ordered	13.4 (13.0–13.9)	13.1 (12.7–13.6)	13.6 (13.2–14.0)	13.2 (12.8–13.7)	13.3 (12.9–13.7)	13.6 (13.1–14.1)	13.5 (13.1–14.0)	13.9 (13.5–14.3)	13.4 (13.0–13.8)	13.7 (13.2–14.1)	—
At least one imaging test ordered	5.5 (5.3–5.7)	5.7 (5.4–5.9)	5.7 (5.4–5.9)	5.7 (5.5–6.0)	5.7 (5.5–5.9)	5.8 (5.6–6.1)	5.9 (5.7–6.2)	6.1 (5.9–6.4)	6.6 (6.3–6.8)	6.4 (6.1–6.6)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval.

Table 12.1b: Encounters at which pathology or imaging was ordered (per cent of encounters), 2006–07 to 2015–16

Test ordered	Per cent of encounters (95% CI)										
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	(a)
At least one pathology test ordered	17.4 (16.8–18.0)	17.4 (16.7–18.0)	18.2 (17.6–18.8)	17.7 (17.1–18.3)	17.8 (17.2–18.4)	18.1 (17.4–18.7)	18.1 (17.4–18.7)	19.1 (18.4–19.7)	18.1 (17.5–18.7)	18.4 (17.8–19.0)	—
At least one imaging test ordered	7.9 (7.6–8.2)	8.3 (8.0–8.6)	8.5 (8.1–8.8)	8.5 (8.2–8.9)	8.4 (8.0–8.7)	8.6 (8.3–9.0)	8.8 (8.4–9.2)	9.3 (9.0–9.7)	9.8 (9.4–10.1)	9.4 (9.1–9.8)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

Note: CI – confidence interval.

Table 12.2a: Pathology test orders by MBS pathology groups (rate per 100 problems), 2006–07 to 2015–16

Pathology test ordered	Rate per 100 problems (95% CI)											2015–16 (n = 150,279) ↑↓ ^(a)
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 151,675)	2013–14 (n = 153,133)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	2015–16 (n = 150,279)	
Chemistry*	16.5 (15.7–17.2)	16.4 (15.6–17.2)	17.4 (16.7–18.1)	16.9 (16.1–17.6)	17.1 (16.4–17.8)	17.9 (17.1–18.8)	17.9 (17.2–18.6)	18.1 (17.4–18.8)	17.6 (16.9–18.4)	18.1 (17.2–19.0)	18.1 (17.2–19.0)	↑
Haematology*	5.3 (5.0–5.6)	5.2 (5.0–5.5)	5.3 (5.0–5.5)	5.4 (5.1–5.7)	5.3 (5.0–5.5)	5.5 (5.2–5.8)	5.4 (5.2–5.7)	5.4 (5.1–5.6)	5.4 (5.1–5.6)	5.3 (5.0–5.6)	5.3 (5.0–5.6)	—
Microbiology*	3.9 (3.7–4.2)	3.7 (3.5–4.0)	3.7 (3.5–3.9)	4.1 (3.9–4.3)	4.3 (3.9–4.6)	4.0 (3.8–4.3)	4.1 (3.8–4.3)	4.2 (4.0–4.4)	4.1 (3.9–4.3)	4.2 (4.0–4.5)	4.2 (4.0–4.5)	—
Cytopathology*	1.1 (1.0–1.3)	1.2 (1.1–1.4)	1.3 (1.1–1.4)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	—
Other NEC*	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.8)	0.6 (0.5–0.7)	0.7 (0.5–0.8)	0.7 (0.5–0.8)	—
Tissue pathology*	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	—
Immunology*	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	↑
Simple tests*	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	↑
Infertility/pregnancy*	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—
Total pathology tests	28.6 (27.5–29.6)	28.5 (27.4–29.6)	29.5 (28.4–30.5)	29.3 (28.2–30.4)	29.6 (28.6–30.7)	30.6 (29.3–31.8)	30.4 (29.3–31.5)	31.0 (30.0–32.1)	30.3 (29.3–31.4)	30.8 (29.7–32.0)	30.8 (29.7–32.0)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result; ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-C-2 and ICP-C-2 PLUS codes (see Appendix 4, Table A4.7, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; MBS – Medicare Benefits Schedule; NEC – not elsewhere classified.

Table 12.2b: Pathology test orders by MBS pathology groups (rate per 100 encounters), 2006–07 to 2015–16

Pathology test ordered	Rate per 100 encounters (95% CI)											(a)
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)		
Chemistry*	24.5 (23.3–25.6)	24.9 (23.6–26.2)	26.9 (25.7–28.1)	25.9 (24.6–27.1)	26.1 (25.0–27.3)	27.6 (26.1–29.1)	27.7 (26.4–29.0)	28.6 (27.3–30.0)	27.3 (26.1–28.6)	27.9 (26.4–29.4)	↑	
Haematology*	7.9 (7.5–8.3)	7.9 (7.5–8.3)	8.2 (7.8–8.6)	8.3 (7.8–8.7)	8.1 (7.6–8.5)	8.5 (8.0–8.9)	8.4 (8.0–8.8)	8.5 (8.1–9.0)	8.4 (7.9–8.8)	8.2 (7.7–8.6)	—	
Microbiology*	5.8 (5.4–6.2)	5.7 (5.3–6.0)	5.7 (5.3–6.1)	6.3 (5.9–6.6)	6.5 (6.0–7.0)	6.2 (5.9–6.6)	6.3 (5.9–6.7)	6.6 (6.2–7.0)	6.4 (6.0–6.7)	6.5 (6.1–6.9)	—	
Cytopathology*	1.7 (1.5–1.9)	1.9 (1.7–2.1)	2.0 (1.7–2.2)	1.7 (1.5–1.9)	1.7 (1.5–1.8)	1.7 (1.5–1.9)	1.5 (1.4–1.7)	1.6 (1.5–1.8)	1.5 (1.4–1.7)	1.5 (1.3–1.7)	—	
Other NEC*	0.8 (0.7–1.0)	1.0 (0.8–1.2)	0.8 (0.7–1.0)	0.8 (0.6–0.9)	0.9 (0.8–1.1)	0.9 (0.7–1.1)	0.9 (0.7–1.1)	1.0 (0.8–1.2)	1.0 (0.8–1.1)	1.0 (0.8–1.3)	—	
Tissue pathology*	0.7 (0.6–0.8)	0.8 (0.6–0.9)	0.7 (0.6–0.9)	0.8 (0.7–0.9)	0.6 (0.5–0.7)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	1.0 (0.9–1.2)	1.0 (0.8–1.1)	1.0 (0.8–1.1)	↑	
Immunology*	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	1.1 (0.9–1.2)	1.1 (1.0–1.2)	0.9 (0.8–1.1)	↑	
Simple tests*	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	↑	
Infertility/pregnancy*	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	—	
Total pathology tests	42.4 (40.7–44.2)	43.1 (41.3–45.0)	45.6 (43.8–47.4)	45.0 (43.1–46.9)	45.2 (43.4–47.0)	47.0 (44.9–49.1)	47.1 (45.1–49.0)	49.1 (47.1–51.0)	47.0 (45.2–48.9)	47.6 (45.5–49.6)	↑	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

* Includes multiple ICP-2 and ICP-2 PLUS codes (see Appendix 4, Table A4.7, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; MBS – Medicare Benefits Schedule; NEC – not elsewhere classified.

Table 12.3a: Imaging orders by MBS imaging groups (rate per 100 problems), 2006–07 to 2015–16

Imaging test ordered	Rate per 100 problems (95% CI)										
	2006–07 (n = 136,333)	2007–08 (n = 145,078)	2008–09 (n = 149,462)	2009–10 (n = 155,373)	2010–11 (n = 146,141)	2011–12 (n = 152,286)	2012–13 (n = 152,517)	2013–14 (n = 151,675)	2014–15 (n = 153,133)	2015–16 (n = 150,279)	(a)
Ultrasound*	2.1 (2.0–2.2)	2.2 (2.1–2.3)	2.3 (2.2–2.4)	2.4 (2.3–2.5)	2.5 (2.4–2.6)	2.6 (2.5–2.7)	2.7 (2.6–2.9)	2.8 (2.7–3.0)	3.1 (3.0–3.3)	3.2 (3.0–3.3)	↑
Diagnostic radiology*	3.1 (2.9–3.2)	3.2 (3.0–3.3)	3.1 (2.9–3.2)	3.0 (2.8–3.1)	3.0 (2.9–3.2)	3.0 (2.8–3.2)	2.9 (2.7–3.0)	2.9 (2.7–3.0)	2.9 (2.8–3.1)	2.8 (2.7–2.9)	↓
Computerised tomography*	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	0.9 (0.9–1.0)	0.8 (0.8–0.9)	↑
Magnetic resonance imaging*	0.0 ^F (0.0–0.0)	0.0 ^F (0.0–0.1)	0.0 ^F (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	↑
Nuclear medicine*	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.0 ^F (0.0–0.0)	↓
Total imaging tests	6.0 (5.8–6.3)	6.3 (6.1–6.5)	6.3 (6.1–6.6)	6.4 (6.1–6.6)	6.4 (6.1–6.7)	6.6 (6.3–6.8)	6.7 (6.4–6.9)	6.9 (6.6–7.2)	7.4 (7.1–7.7)	7.1 (6.9–7.4)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07.

^F Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 problems.

* Includes multiple ICPC-2 and ICPC-2 PLUS codes (see Appendix 4, Table A4.8, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; MBS – Medicare Benefits Schedule.

Table 12.3b: Imaging orders by MBS imaging groups (rate per 100 encounters), 2006–07 to 2015–16

Imaging test ordered	Rate per 100 encounters (95% CI)											2015–16 (n = 97,398)	↑ ^(a) ↓
	2006–07 (n = 91,805)	2007–08 (n = 95,898)	2008–09 (n = 96,688)	2009–10 (n = 101,349)	2010–11 (n = 95,839)	2011–12 (n = 99,030)	2012–13 (n = 98,564)	2013–14 (n = 95,879)	2014–15 (n = 98,728)	2015–16 (n = 97,398)	2015–16 (n = 97,398)		
Ultrasound*	3.2 (3.0–3.3)	3.4 (3.2–3.5)	3.6 (3.4–3.8)	3.7 (3.5–3.8)	3.8 (3.6–4.0)	4.0 (3.8–4.2)	4.2 (4.0–4.4)	4.5 (4.3–4.7)	4.9 (4.6–5.1)	4.9 (4.7–5.1)	4.9 (4.7–5.1)	4.9 (4.7–5.1)	↑
Diagnostic radiology*	4.6 (4.4–4.8)	4.8 (4.6–5.0)	4.7 (4.5–5.0)	4.6 (4.3–4.8)	4.6 (4.4–4.9)	4.6 (4.3–4.9)	4.5 (4.2–4.7)	4.5 (4.3–4.7)	4.5 (4.3–4.8)	4.5 (4.3–4.8)	4.3 (4.1–4.5)	4.3 (4.1–4.5)	—
Computerised tomography*	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.1–1.4)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.5 (1.3–1.6)	1.5 (1.3–1.6)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	↑
Magnetic resonance imaging*	0.0 [†] (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	↑
Nuclear medicine*	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	—
Total imaging tests	9.0 (8.6–9.3)	9.5 (9.2–9.9)	9.8 (9.4–10.2)	9.7 (9.3–10.1)	9.8 (9.4–10.2)	10.1 (9.6–10.5)	10.3 (9.9–10.8)	10.9 (10.5–11.4)	11.5 (11.0–11.9)	11.5 (11.0–11.9)	11.0 (10.6–11.5)	11.0 (10.6–11.5)	↑

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

† Rates are reported to one decimal place. This indicates that the rate is less than 0.05 per 100 encounters.

* Includes multiple ICP-2 and ICP-2 PLUS codes (see Appendix 4, Table A4.8, <hdl.handle.net/2123/15482>).

Note: CI – confidence interval; MBS – Medicare Benefits Schedule.

13 Patient risk factors

General practice is a useful intervention point for health promotion because the majority of the population visit a GP at least once per year — in 2015–16, 86.8% of Australians visited a GP at least once (personal communication, DoH, May 2016). GPs have substantial knowledge of population health and screening programs. They are in an ideal position to advise patients about the benefits of health screening, and to individually counsel patients about their lifestyle choices.

Since the beginning of the BEACH program (1998), a section on the bottom of each encounter form has been used to investigate aspects of patient health or healthcare delivery not covered by general practice encounter-based information. These additional substudies are referred to as Supplementary Analysis of Nominated Data (SAND). The SAND methods are described in Section 2.6.

- In brief, measured patient risk factors included self-reported height and weight (to calculate body mass index or BMI), alcohol consumption and smoking status. Each GP completed risk factor questions for patients at a subsample of 40 encounters. An example of the encounter form with the patient risk factor SAND questions is provided in Appendix 1. The methods used to investigate each risk factor are summarised in this chapter. Further detail is provided in Chapter 13 of the companion report, *General practice activity in Australia 2015–16*.¹

This chapter includes unweighted data about the risk behaviours of general practice patients from each of the most recent 10 years of the BEACH study from 2006–07 to 2015–16 (Tables 13.1a, 13.2a, 13.3a). Unweighted data are presented for comparability over time as this was reported in all annual reports. Medicare claims data (from DoH), were used to calculate more precise estimates of prevalence, after adjusting results to the general practice attending population. These data were only provided from 2007–08 onwards, so risk factor prevalence after adjustment for general practice attendance patterns by age–sex are presented for each of the 9 most recent years (Tables 13.1b, 13.2b, 13.3b).

The direction and type of change from 2006–07 to 2015–16 is indicated for each result in the far right column of the tables: \uparrow/\downarrow indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; \uparrow/\downarrow indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07; and § indicates a noteworthy change during the decade.

13.1 Body mass index

Patient BMI was investigated for a subsample of 40 patients per GP. Each GP was instructed to ask the patient (or their carer in the case of children):

- What is your height in centimetres (without shoes)?
- What is your weight in kilograms (unclothed)?

Metric conversion tables (feet and inches; stones and pounds) were provided to the GP.

The BMI for an individual was calculated by dividing weight (kilograms) by height (metres) squared. The WHO recommendations⁵⁴ for BMI groups were used, which specify that an adult (18 years and over) with a BMI:

- less than 18.5 is underweight
- greater than or equal to 18.5 and less than 25 is normal
- greater than or equal to 25 and less than 30 is overweight
- of 30 or more is obese.

The BEACH data on BMI are presented separately for adults (aged 18 years and over) and children (aged 2–17 years). The standard BMI cut-offs described above were applied for the adult sample, and the method described by Cole et al. (2000 & 2007) was used for children (aged 2–17 years).^{55,56}

Adults

Overall prevalence of overweight/obesity in adults sampled at general practice encounters increased significantly from 58.5% in 2006–07 (95% CI: 57.6–59.3) to 63.2% in 2015–16 (95% CI: 62.3–64.1) (results not tabulated).

- The prevalence of obesity in adults rose from 23.5% in 2006–07 to 28.8% in 2015–16 (Table 13.1a), and this significant increase was apparent among both male and female patients (Tables 13.2a and 13.3a). An increase in obesity was evident between 2006–07 and 2010–11 (from 23.5% to 26.7%), prevalence was then static at about 27% for the 3 years 2010–11 to 2012–13. Between 2012–13 and 2015–16, there was another significant increase noted (from 26.6% to 28.8%).
- In contrast, prevalence of overweight remained steady over the decade at about 35% of surveyed adult patients.
- The proportion of adults who were in the normal weight range decreased significantly from 39.0% in 2006–07 to 34.6% in 2015–16 (Table 13.1a). This significant decrease was apparent among both males and females (Tables 13.2a and 13.3a). A decrease in normal weight was evident between 2006–07 and 2010–11 (from 39.0% to 35.8%), prevalence was then static at about 36% for the 3 years from 2010–11 to 2012–13. A further decrease occurred from 2012–13 to 2015–16 (36.2% to 34.6%), corresponding with the increase in obesity.
- There was a marginal decrease in the proportion of patients who were underweight, from 2.6% to 2.2% over the decade (Table 13.1a). This marginal decrease was only apparent among female patients (Tables 13.2a and 13.3a).
- In summary, for both male and female sampled patients between 2006–07 and 2015–16, there was a significant increase in the prevalence of obesity for both sexes and a corresponding decrease in normal weight. Effectively a significant proportion of patients moved from the normal weight range into the overweight range, and a similar proportion of those who were overweight moved into the obese weight range.
- The estimates for the adult GP–patient attending population (after adjusting for age–sex general practice attendance patterns) showed an increase in prevalence of obesity between 2007–08 and 2015–16, from 23.4% to 27.9%, and a corresponding decrease in the prevalence of normal weight, from 38.9% to 35.8% (Table 13.1b). This pattern was noted among both male and female patients (Tables 13.2b and 13.3b). Effectively a significant proportion of attending patients moved from the normal weight range into the overweight range, and a similar proportion of those who were overweight moved into the obese weight range.

Children

The prevalence of overweight and obesity among sampled children aged 2–17 years remained effectively static for the 10 years from 2006–07 to 2015–16 (around 18% and 10% respectively) (Table 13.1a). Similar patterns were present among both male and female children (Tables 13.2a and 13.3a).

13.2 Smoking

GPs were instructed to ask adult patients (18 years and over):

- What best describes your smoking status?
 - Smoke daily
 - Smoke occasionally
 - Previous smoker
 - Never smoked

Results

There was a significant decrease in the rates of current daily smoking and occasional smoking among sampled adults aged 18 years and over attending general practice, from 16.1% and 3.2% respectively in 2006–07 to 13.3% and 2.1% in 2015–16 (Table 13.1a). These decreases occurred among both sexes (Tables 13.2a and 13.3a). There was also a significant increase in the proportion who had never smoked, from 51.9% in 2006–07 to 56.8% in 2015–16, also apparent among both male and female patients.

Rates of daily smoking were significantly higher among male patients than among female patients in all years. In 2015–16, prevalence was 16.1% of males and 11.5% of females.

The estimates for the adult GP–patient attending population (after adjusting for age–sex general practice attendance patterns) showed a significant decrease in prevalence of daily smoking and occasional smoking from 19.3% and 3.5% respectively in 2006–07 to 15.8% and 2.8% in 2015–16. A corresponding increase in prevalence was noted for patients who had never smoked from 51.5% to 56.4% (Table 13.1b). The pattern noted for male patients was a significant decrease in daily smoking and corresponding increase in never smoking, and among female patients there was a significant decrease in occasional smoking and corresponding increase in never smoking (Tables 13.2b and 13.3b).

13.3 Alcohol consumption

To measure alcohol consumption, BEACH uses AUDIT-C,⁵⁷ which is the first three items from the WHO Alcohol Use Disorders Identification Test (AUDIT),⁵⁸ with scoring for an Australian setting.⁵⁹ The AUDIT-C has demonstrated validity and internal consistency and performs as well as the full AUDIT tool.⁶⁰ The three–AUDIT-C tool is practical and valid in a primary care setting to assess ‘at-risk’ alcohol consumption (heavy drinking and/or active alcohol dependence).⁵⁷ The scores for each question range from zero to four. A total (sum of all three questions) score of five or more for males, or four or more for females, suggests that the person’s drinking level is placing him or her at risk.⁵⁹

GPs were instructed to ask adult patients (18 years and over):

- How often do you have a drink containing alcohol?
 - Never
 - Monthly or less
 - Once a week/fortnight
 - 2–3 times a week
 - 4 times a week or more
- How many standard drinks do you have on a typical day when you are drinking?

- How often do you have six or more standard drinks on one occasion?
 - Never
 - Less than monthly
 - Monthly
 - Weekly
 - Daily or almost daily

A standard drinks chart was provided to each GP to help the patient identify the number of standard drinks consumed.

Results

Rates of at-risk levels of alcohol consumption among sampled adults declined from about 27% in 2006–07 to 23% in 2015–16. There was a corresponding increase in the proportion who were non-drinkers, from about 28% in 2006–07 to 33% in 2015–16 (Table 13.1a). The significant decrease in at-risk levels of alcohol consumption and increase in non-drinking was apparent among both male and female patients (Tables 13.2a and 13.3a).

The estimates for the adult GP–patient attending population (after adjusting for age–sex general practice attendance patterns) showed a significant decrease in prevalence of at-risk levels of alcohol consumption between 2007–08 and 2015–16 from 29.3% to 25.3%, and a corresponding increase in the proportion of non-drinkers, from 26.5% to 30.7% (Table 13.1b). This pattern in adults applied to both male and female patients (Tables 13.2b and 13.3b).

13.4 Risk factor profile of adult patients

All patient risk factor questions (BMI, smoking and alcohol consumption) were asked of the same subsample of adult patients. This allows us to build a risk profile for this sample for the three risk elements: overweight or obese weight status; daily smoking; and at-risk drinking. Each adult can have between zero and three of these risk factors.

Results

There was no significant change over the 10 years in the proportion of sampled adults who had no risk factors, remaining between about 25 to 26% in all years. There was a significant increase in the proportion of sampled adults with one risk factor, from 49.8% in 2006–07 to 53.7% in 2015–16 (Table 13.1a). The increase was apparent among both male and female adult patients (Tables 13.2a and 13.3a). There was a significant decrease in the proportion of patients with two (20.4% to 18.5%) or three (3.7% to 2.9%) risk factors — corresponding with the increase in the proportion with one risk factor. This pattern applied among both male and female patients.

The estimates for the adult GP–patient attending population (after adjusting for age–sex general practice attendance patterns) showed an increase in prevalence of one risk factor between 2007–08 and 2015–16 from 48.2% to 51.7%, and a corresponding decrease in prevalence of both two (21.9% to 20.4%) and three (5.1% to 3.6%) risk factors from (Table 13.1b). This pattern in adults applied among male patients, but among female patients the prevalence of only one risk factor increased and three risk factors decreased (Tables 13.2b and 13.3b).

Table 13.1a: Patient risk factors, 2006–07 to 2015–16

Risk factor	Per cent (95% CI)											2015–16	
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16			
Adults (aged 18 years and over)													
Body mass index class^(b) (n)	32,334	31,062	33,526	31,932	31,315	32,372	31,452	31,371	32,956	31,662			
Obese	23.5 (22.7–24.2)	23.9 (23.1–24.6)	25.4 (24.7–26.1)	25.9 (25.2–26.6)	26.7 (26.0–27.5)	26.6 (25.8–27.3)	26.6 (25.8–27.4)	27.8 (27.0–28.5)	28.0 (27.3–28.8)	28.8 (28.0–29.6)	↑		
Overweight	35.0 (34.3–35.6)	35.4 (34.7–36.0)	36.1 (35.5–36.7)	34.4 (33.7–35.0)	35.1 (34.4–35.7)	35.0 (34.4–35.6)	34.6 (34.0–35.2)	34.9 (34.3–35.5)	34.1 (33.5–34.7)	34.5 (33.9–35.1)	–		
Normal	39.0 (38.1–39.8)	38.3 (37.4–39.2)	36.1 (35.3–36.8)	37.3 (36.5–38.2)	35.8 (35.0–36.7)	36.2 (35.3–37.0)	36.2 (35.4–37.0)	35.1 (34.3–35.9)	35.5 (34.7–36.3)	34.6 (33.7–35.4)	↓		
Underweight	2.6 (2.4–2.8)	2.5 (2.3–2.7)	2.5 (2.3–2.7)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	2.3 (2.1–2.4)	2.6 (2.4–2.8)	2.2 (2.0–2.4)	2.4 (2.2–2.6)	2.2 (2.0–2.4)	↓		
Smoking status (n)	31,176	31,652	34,194	32,744	32,160	33,086	32,499	32,166	33,685	32,664			
Daily	16.1 (15.4–16.9)	16.5 (15.8–17.3)	15.3 (14.6–15.9)	15.1 (14.4–15.8)	14.8 (14.2–15.5)	14.7 (14.0–15.3)	14.4 (13.7–15.1)	13.5 (12.9–14.2)	14.1 (13.4–14.7)	13.3 (12.7–14.0)	↓		
Occasional	3.2 (2.9–3.4)	2.9 (2.7–3.2)	2.6 (2.4–2.9)	2.7 (2.5–2.9)	2.7 (2.4–2.9)	2.5 (2.3–2.7)	2.6 (2.3–2.8)	2.3 (2.1–2.5)	2.2 (2.0–2.4)	2.1 (1.9–2.4)	↓		
Previous	28.8 (28.0–29.6)	27.9 (27.1–28.6)	28.8 (28.1–29.6)	28.2 (27.4–29.0)	28.3 (27.5–29.1)	27.9 (27.2–28.7)	27.7 (27.0–28.5)	28.6 (27.8–29.4)	27.8 (27.0–28.6)	27.7 (26.9–28.5)	–		
Never	51.9 (50.9–52.9)	52.7 (51.7–53.6)	53.3 (52.4–54.2)	54.0 (53.1–55.0)	54.2 (53.3–55.2)	54.9 (53.9–55.8)	55.3 (54.4–56.3)	55.6 (54.6–56.6)	55.9 (54.9–56.9)	56.8 (55.8–57.7)	↑		
Alcohol consumption (n)	30,347	30,796	33,347	31,771	31,190	33,257	31,640	31,369	32,835	31,720			
At-risk alcohol level	27.0 (26.1–28.0)	26.2 (25.3–27.1)	25.2 (24.3–26.0)	26.5 (25.7–27.4)	24.8 (23.9–25.7)	24.5 (23.7–25.4)	24.1 (23.3–24.9)	23.0 (22.2–23.8)	23.3 (22.5–24.2)	22.7 (21.9–23.6)	↓		
Responsible drinker	44.6 (43.7–45.5)	44.6 (43.7–45.5)	45.2 (44.3–46.1)	44.4 (43.5–45.3)	44.0 (43.0–44.9)	43.7 (42.9–44.6)	44.2 (43.3–45.1)	43.9 (43.0–44.8)	42.9 (42.0–43.8)	43.9 (43.0–44.9)	–		
Non-drinker	28.3 (27.3–29.4)	29.3 (28.2–30.3)	29.6 (28.6–30.7)	29.1 (28.0–30.1)	31.3 (30.2–32.4)	31.7 (30.6–32.8)	31.7 (30.6–32.8)	33.1 (32.0–34.2)	33.8 (32.7–34.9)	33.3 (32.2–34.5)	↑		

(continued)

Table 13.1a (continued): Patient risk factors, 2006–07 to 2015–16

Risk factor	Per cent (95% CI)											↑ ^(e) ↓	
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16			
Adults (aged 18 years and over)													
Number of risk factors^(c) (n)	29,386	30,002	32,432	30,795	30,177	31,401	30,345	30,250	31,952	30,672			
Zero	26.0 (25.2–26.8)	26.1 (25.3–26.9)	25.0 (24.2–25.7)	25.8 (25.0–26.5)	25.0 (24.3–25.7)	25.4 (24.6–26.2)	25.8 (25.0–26.6)	25.4 (24.7–26.2)	25.6 (24.8–26.4)	24.9 (24.1–25.6)		—	
One	49.8 (49.1–50.6)	50.1 (49.4–50.8)	51.8 (51.1–52.5)	50.3 (49.6–51.0)	52.2 (51.5–52.9)	52.1 (51.4–52.8)	52.0 (51.3–52.7)	53.0 (52.3–53.7)	52.2 (51.5–53.0)	53.7 (53.0–54.5)		↑	
Two	20.4 (19.8–21.1)	19.8 (19.1–20.4)	19.5 (18.9–20.0)	20.1 (19.5–20.7)	19.1 (18.5–19.8)	18.9 (18.3–19.5)	18.8 (18.1–19.4)	18.4 (17.8–19.0)	19.0 (18.3–19.6)	18.5 (17.9–19.2)		↓	
Three	3.7 (3.5–4.0)	4.1 (3.8–4.4)	3.8 (3.5–4.1)	3.8 (3.6–4.1)	3.7 (3.4–4.0)	3.6 (3.3–3.9)	3.4 (3.1–3.7)	3.2 (2.9–3.4)	3.2 (3.0–3.4)	2.9 (2.6–3.1)		↓	
Children (aged 2–17 years)^(d) (n)	3,087	3,046	2,970	3,183	3,008	3,093	3,069	2,536	3,112	3,077			
Obese	10.6 (9.3–11.9)	11.2 (10.0–12.5)	10.5 (9.3–11.7)	9.6 (8.4–10.8)	10.6 (9.3–12.0)	11.1 (9.8–12.5)	9.0 (7.9–10.2)	9.6 (8.3–10.8)	8.6 (7.5–9.7)	9.9 (8.7–11.1)		—	
Overweight	18.6 (17.2–20.0)	17.1 (15.7–18.5)	16.7 (15.3–18.2)	18.0 (16.7–19.4)	17.7 (16.2–19.1)	17.6 (16.2–19.0)	17.3 (15.9–18.7)	18.7 (17.1–20.4)	18.4 (17.0–19.9)	18.1 (16.7–19.5)		—	
Normal	61.2 (59.3–63.0)	61.7 (59.7–63.6)	62.9 (61.0–64.8)	62.3 (60.4–64.1)	61.8 (59.9–63.8)	60.3 (58.4–62.3)	62.5 (60.6–64.5)	62.1 (60.1–64.2)	62.1 (60.3–64.0)	62.1 (60.3–63.9)		—	
Underweight	9.7 (8.6–10.8)	10.1 (8.9–11.2)	9.9 (8.8–11.1)	10.1 (9.0–11.3)	9.9 (8.7–11.0)	11.0 (9.7–12.2)	11.1 (9.9–12.4)	9.6 (8.3–10.8)	10.8 (9.6–12.0)	9.9 (8.8–11.1)		—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑/↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Adult patients aged 18 years and over with a recorded height outside the Australian Bureau of Statistics height range based on age and sex were excluded.

(c) Adult risk factors are: overweight or obesity; daily smoking; or at-risk alcohol consumption.

(d) Children (aged 2–17 years) with height outside the Australian Bureau of Statistics or Centres for Disease Control height range based on age and sex were excluded.

Note: CI – confidence interval.

Table 13.1b: Prevalence of patient risk factors among adults 18+ attending general practice at least once, 2007–08 to 2015–16

Risk factor	Per cent (95% CI)										2015–16
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adults (aged 18 years and over)	31,292	33,516	31,924	31,317	32,373	31,449	31,363	32,956	31,667		
Body mass index class^(b) (n)											
Obese	23.4 (22.7–24.2)	24.5 (23.8–25.2)	25.4 (24.6–26.1)	26.1 (25.3–26.9)	26.1 (25.3–26.9)	26.0 (25.2–26.9)	26.9 (26.1–27.8)	27.2 (26.4–28.0)	27.9 (27.1–28.8)	↑	
Overweight	35.3 (34.6–36.0)	35.4 (34.7–36.0)	34.4 (33.8–35.1)	34.6 (33.9–35.3)	34.9 (34.2–35.5)	34.4 (33.7–35.1)	34.6 (33.9–35.2)	33.9 (33.3–34.6)	34.0 (33.4–34.7)	–	
Normal	38.9 (38.0–39.9)	37.7 (36.8–38.6)	38.0 (37.1–38.9)	37.0 (36.2–37.9)	36.9 (36.0–37.8)	37.0 (36.1–37.9)	36.3 (35.4–37.2)	36.6 (35.7–37.5)	35.8 (34.9–36.7)	↓	
Underweight	2.3 (2.1–2.5)	2.4 (2.2–2.6)	2.2 (2.0–2.4)	2.3 (2.1–2.5)	2.2 (2.0–2.3)	2.5 (2.3–2.7)	2.2 (2.0–2.4)	2.3 (2.1–2.5)	2.2 (2.0–2.4)	–	
Smoking status (n)	31,884	34,189	32,734	32,161	33,085	32,497	32,156	33,685	32,668		
Daily	19.3 (18.5–20.1)	18.8 (18.0–19.6)	17.7 (16.9–18.5)	17.8 (17.0–18.6)	17.4 (16.6–18.2)	17.3 (16.4–18.1)	16.9 (15.9–17.8)	16.5 (15.7–17.3)	15.8 (15.1–16.6)	↓	
Occasional	3.5 (3.2–3.9)	3.5 (3.1–3.8)	3.3 (3.0–3.6)	3.5 (3.1–3.8)	3.2 (2.9–3.5)	3.3 (2.9–3.6)	3.1 (2.7–3.4)	2.8 (2.6–3.1)	2.8 (2.4–3.1)	↓	
Previous	25.7 (24.9–26.5)	25.3 (24.6–26.1)	25.9 (25.1–26.6)	25.4 (24.7–26.2)	25.7 (24.9–26.4)	25.7 (24.7–26.2)	25.6 (24.8–26.3)	25.1 (24.3–25.9)	25.0 (24.3–25.8)	–	
Never	51.5 (50.4–52.5)	52.5 (51.5–53.4)	53.1 (52.1–54.1)	53.3 (52.3–54.4)	53.8 (52.8–54.8)	54.0 (53.0–55.0)	54.5 (53.4–55.6)	55.5 (54.5–56.6)	56.4 (55.4–57.4)	↑	
Alcohol consumption (n)	30,796	33,347	31,771	31,190	33,257	31,640	31,369	32,835	31,720		
At-risk alcohol level	29.3 (28.3–30.3)	29.2 (28.2–30.2)	29.7 (28.7–30.6)	28.3 (27.3–29.3)	27.9 (26.9–28.9)	27.3 (26.3–28.2)	26.2 (25.3–27.1)	26.1 (25.2–27.1)	25.3 (24.4–26.3)	↓	
Responsible drinker	44.2 (43.3–45.1)	44.4 (43.4–45.3)	44.1 (43.1–45.0)	43.4 (42.4–44.4)	43.4 (42.5–44.3)	44.1 (43.1–45.0)	44.0 (43.0–45.0)	43.0 (42.1–43.9)	44.0 (43.0–45.0)	–	
Non-drinker	26.5 (25.5–27.5)	26.4 (25.4–27.4)	26.3 (25.2–27.3)	28.2 (27.1–29.4)	28.7 (27.6–29.9)	28.7 (27.6–29.7)	29.8 (28.7–30.9)	30.8 (29.7–31.9)	30.7 (29.5–31.8)	↑	

(continued)

Table 13.1b (continued): Prevalence of patient risk factors among adults 18+ attending general practice at least once, 2007–08 to 2015–16

Risk factor	Per cent (95% CI)										↑(e) ↓
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adults (aged 18 years and over)											
Number of risk factors^(c) (n)	30,002	32,432	30,795	30,177	31,401	30,345	30,250	31,952	30,672		
Zero	24.8 (23.9–25.6)	24.0 (23.2–24.8)	24.5 (23.7–25.3)	24.0 (23.2–24.8)	24.1 (23.3–24.9)	24.8 (23.9–25.7)	24.5 (23.7–25.3)	24.9 (24.1–25.8)	24.3 (23.5–25.1)	—	
One	48.2 (47.5–48.9)	49.1 (48.4–49.8)	48.6 (47.8–49.3)	50.0 (49.2–50.7)	50.2 (49.5–50.9)	49.9 (49.2–50.7)	50.6 (49.8–51.3)	50.1 (49.4–50.9)	51.7 (50.9–52.5)	↑	
Two	21.9 (21.2–22.7)	21.9 (21.2–22.6)	22.2 (21.5–22.9)	21.4 (20.6–22.1)	21.2 (20.5–21.9)	20.9 (20.2–21.6)	20.8 (20.1–21.6)	21.0 (20.3–21.7)	20.4 (19.7–21.1)	↓	
Three	5.1 (4.7–5.4)	5.1 (4.7–5.4)	4.8 (4.4–5.1)	4.7 (4.3–5.0)	4.5 (4.2–4.9)	4.4 (4.0–4.7)	4.1 (3.8–4.5)	3.9 (3.6–4.2)	3.6 (3.3–3.9)	↓	

(a) The direction and type of change from 2007–08 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2007–08; and — indicates there was no significant change in 2015–16 compared with 2007–08.

(b) Adult patients aged 18 years and over with a recorded height outside the Australian Bureau of Statistics height range based on age and sex were excluded.

(c) Adult risk factors are: overweight or obesity; daily smoking; or at-risk alcohol consumption.

Note: CI – confidence interval.

Table 13.2a: Patient risk factors among male patients, 2006–07 to 2015–16

Risk factor	Per cent (95% CI)											↑ ^(a) ↓
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adult males (aged 18 years and over)	12,715	12,126	13,595	11,945	12,322	12,531	12,171	12,022	12,947	12,499		
Body mass index class^(b) (n)												
Obese	22.4 (21.6–23.3)	23.1 (22.1–24.1)	25.0 (24.1–26.0)	25.5 (24.6–26.5)	26.1 (25.2–27.1)	26.4 (25.4–27.4)	26.7 (25.7–27.7)	27.2 (26.2–28.2)	28.1 (27.1–29.0)	28.5 (27.5–29.6)	↑	
Overweight	42.3 (41.4–43.3)	43.0 (42.0–44.0)	43.6 (42.7–44.6)	42.1 (41.1–43.0)	42.2 (41.2–43.2)	42.5 (41.5–43.5)	42.5 (41.5–43.4)	42.0 (41.1–43.0)	41.4 (40.5–42.4)	41.7 (40.7–42.7)	–	
Normal	34.0 (32.9–35.1)	32.7 (31.6–33.8)	30.3 (29.3–31.4)	31.6 (30.2–32.3)	30.6 (29.5–31.6)	29.9 (28.8–30.9)	29.8 (28.7–30.8)	29.6 (28.6–30.6)	29.6 (28.5–30.6)	28.7 (27.6–29.7)	↓	
Underweight	1.2 (1.0–1.4)	1.2 (1.0–1.4)	1.0 (0.8–1.2)	1.2 (1.0–1.4)	1.1 (0.9–1.3)	1.3 (1.1–1.5)	1.1 (0.9–1.3)	1.1 (0.9–1.3)	0.9 (0.8–1.1)	1.1 (0.9–1.3)	–	
Smoking status (n)	12,257	12,335	13,841	12,260	12,600	12,777	12,518	12,294	13,180	12,881		
Daily	19.4 (18.3–20.5)	19.8 (18.8–20.8)	18.1 (17.2–19.0)	18.1 (17.1–19.1)	17.8 (16.9–18.7)	18.0 (17.1–19.0)	17.6 (16.6–18.6)	16.7 (15.7–17.8)	17.4 (16.5–18.4)	16.1 (15.2–17.0)	↓	
Occasional	3.8 (3.4–4.2)	3.3 (2.9–3.7)	3.0 (2.6–3.4)	3.1 (2.8–3.5)	3.1 (2.7–3.5)	2.9 (2.6–3.3)	3.2 (2.8–3.6)	2.9 (2.5–3.3)	2.6 (2.3–2.9)	2.7 (2.3–3.1)	↓	
Previous	37.1 (35.8–38.4)	36.5 (35.3–37.7)	37.9 (36.8–39.1)	36.9 (35.8–38.1)	36.8 (35.6–38.0)	36.3 (35.1–37.4)	36.6 (35.4–37.8)	37.0 (35.8–38.2)	36.0 (34.8–37.2)	35.8 (34.6–37.0)	–	
Never	39.7 (38.5–41.0)	40.4 (39.2–41.6)	41.0 (39.8–42.2)	41.8 (40.6–43.0)	42.3 (41.1–43.5)	42.8 (41.6–44.0)	42.6 (41.4–43.8)	43.4 (42.1–44.7)	44.0 (42.8–45.2)	45.4 (44.2–46.6)	↑	
Alcohol consumption (n)	12,005	12,071	13,583	11,974	12,321	12,572	12,274	12,079	12,969	12,588		
At-risk alcohol level	32.5 (31.2–33.8)	31.7 (30.5–32.9)	30.1 (28.9–31.2)	31.6 (30.4–32.8)	30.0 (28.8–31.2)	29.3 (28.1–30.5)	29.3 (28.2–30.5)	27.6 (26.5–28.8)	28.2 (27.1–29.4)	26.5 (25.3–27.7)	↓	
Responsible drinker	48.0 (46.7–49.2)	47.6 (46.4–48.8)	48.9 (47.8–50.1)	47.6 (46.4–48.8)	47.7 (46.5–48.9)	46.7 (45.5–48.0)	47.6 (46.4–48.8)	48.8 (47.6–50.0)	47.0 (45.9–48.2)	48.4 (47.2–48.7)	–	
Non-drinker	19.5 (18.5–20.6)	20.7 (19.6–21.8)	21.0 (20.0–22.0)	20.8 (19.7–21.9)	22.3 (21.2–23.5)	24.0 (22.8–25.2)	23.1 (22.0–24.2)	23.6 (22.4–24.7)	24.7 (23.5–25.9)	25.1 (23.9–26.3)	↑	

(continued)

Table 13.2a (continued): Patient risk factors among male patients, 2006–07 to 2015–16

Risk factor	Per cent (95% CI)											↑ ^(a) ↓
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adult males (aged 18 years and over)	11,662	11,784	13,228	11,613	11,955	12,252	11,827	11,687	12,665	12,194		
Number of risk factors^(c) (n)	11,662	11,784	13,228	11,613	11,955	12,252	11,827	11,687	12,665	12,194		
Zero	20.3 (19.4–21.2)	20.2 (19.2–21.1)	19.0 (18.1–19.8)	19.6 (18.7–20.5)	19.2 (18.3–20.0)	18.9 (18.0–19.8)	18.9 (18.0–19.8)	19.6 (18.7–20.4)	19.2 (18.3–20.1)	19.0 (18.1–20.0)	—	
One	48.0 (47.0–49.1)	48.0 (47.0–49.0)	50.5 (49.6–51.5)	49.0 (48.0–50.0)	50.9 (49.8–51.9)	51.5 (50.4–52.5)	51.3 (50.2–52.3)	51.9 (50.8–52.9)	51.0 (49.9–52.0)	53.0 (51.9–54.1)	↑	
Two	26.2 (25.2–27.2)	25.9 (24.9–26.9)	25.0 (24.1–25.9)	25.8 (24.9–26.8)	24.7 (23.7–25.6)	24.3 (23.3–25.2)	24.5 (23.5–25.4)	23.9 (22.9–24.9)	25.1 (24.2–26.1)	23.9 (23.0–24.9)	↓	
Three	5.5 (5.0–6.0)	5.9 (5.4–6.4)	5.5 (5.0–5.9)	5.6 (5.1–6.1)	5.3 (4.9–5.8)	5.4 (4.9–5.8)	5.3 (4.9–5.8)	4.7 (4.2–5.1)	4.7 (4.3–5.1)	4.1 (3.7–4.5)	↓	
Male children (aged 2–17 years)^(d) (n)	1,509	1,484	1,415	1,499	1,450	1,487	1,451	1,226	1,495	1,541		
Obese	11.6 (9.8–13.4)	11.9 (10.1–13.7)	10.3 (8.6–11.9)	10.5 (8.9–12.2)	11.2 (9.4–12.9)	11.8 (10.0–13.7)	10.1 (8.4–11.7)	10.7 (8.8–12.6)	9.0 (7.5–10.5)	10.1 (8.6–11.7)	—	
Overweight	19.7 (17.7–21.7)	17.3 (15.4–19.3)	18.2 (16.1–20.4)	17.4 (15.3–19.5)	17.4 (15.4–19.5)	17.8 (15.7–19.8)	17.4 (15.4–19.4)	17.8 (15.6–20.0)	17.6 (15.6–19.6)	18.3 (16.4–20.2)	—	
Normal	58.8 (56.2–61.4)	61.1 (58.5–63.5)	62.0 (59.3–64.7)	62.2 (59.6–64.9)	62.4 (59.7–65.2)	60.1 (57.4–62.9)	61.8 (59.2–64.4)	62.8 (59.9–65.7)	63.2 (60.8–65.7)	62.4 (59.9–64.9)	—	
Underweight	9.9 (8.4–11.5)	9.6 (8.0–11.3)	9.5 (8.0–11.1)	9.8 (8.2–11.4)	9.0 (7.4–10.6)	10.3 (8.6–12.0)	10.7 (8.9–12.4)	8.7 (7.1–10.4)	10.2 (8.6–11.8)	9.1 (7.6–10.7)	—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; and — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Adult patients aged 18 years and over with a recorded height outside the Australian Bureau of Statistics height range based on age and sex were excluded.

(c) Adult risk factors are: overweight or obesity; daily smoking; or at-risk alcohol consumption.

(d) Children (aged 2–17 years) with height outside the Australian Bureau of Statistics or Centres for Disease Control height range based on age and sex were excluded.

Note: CI – confidence interval.

Table 13.2b: Prevalence of patient risk factors among adult males 18+ attending general practice at least once, 2007–08 to 2015–16

Risk factor	Per cent (95% CI)										2015–16	↑ ↓ ^(a)	
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16				
Adult males (aged 18 years and over)													
Body mass index class^(b) (n)	12,126	13,595	11,945	12,322	12,531	12,171	12,022	12,947	12,499				
Obese	22.8 (21.8–23.8)	24.2 (23.3–25.2)	25.1 (24.1–26.1)	25.4 (24.4–26.4)	25.7 (24.6–26.8)	26.1 (25.0–27.2)	26.2 (25.1–27.4)	27.1 (26.0–28.1)	27.7 (26.6–28.8)				
Overweight	42.1 (41.0–43.2)	42.4 (41.4–43.5)	40.9 (39.9–41.9)	41.0 (39.9–42.0)	41.5 (40.4–42.5)	41.4 (40.3–42.5)	41.1 (40.0–42.1)	40.2 (39.2–41.3)	40.5 (39.4–41.5)				
Normal	34.0 (32.7–35.2)	32.3 (31.1–33.5)	32.9 (31.7–34.0)	32.5 (31.3–33.6)	31.5 (30.4–32.7)	31.4 (30.2–32.5)	31.4 (30.2–32.6)	31.7 (30.5–32.9)	30.7 (29.5–31.9)				
Underweight	1.1 (0.9–1.4)	1.1 (0.9–1.3)	1.1 (0.9–1.4)	1.2 (1.0–1.4)	1.3 (1.1–1.5)	1.2 (1.0–1.4)	1.3 (1.0–1.5)	1.0 (0.8–1.2)	1.2 (1.0–1.4)				
Smoking status (n)	12,335	13,841	12,260	12,600	12,777	12,518	12,294	13,180	12,881				
Daily	23.4 (22.2–24.5)	22.8 (21.7–24.0)	21.4 (20.2–22.6)	21.6 (20.6–22.7)	21.4 (20.3–22.5)	21.3 (20.1–22.4)	20.9 (19.6–22.2)	20.5 (19.4–21.7)	19.3 (18.2–20.3)				
Occasional	4.1 (3.6–4.6)	4.1 (3.5–4.6)	3.9 (3.4–4.3)	4.1 (3.5–4.6)	3.8 (3.3–4.2)	4.2 (3.6–4.7)	3.9 (3.3–4.4)	3.5 (3.1–3.9)	3.5 (3.0–4.0)				
Previous	30.5 (29.4–31.6)	29.9 (28.8–31.0)	30.6 (29.5–31.7)	30.0 (28.9–31.1)	30.4 (29.3–31.5)	30.5 (29.4–31.6)	29.8 (28.7–30.9)	29.5 (28.3–30.6)	29.5 (28.3–30.6)				
Never	42.0 (40.7–43.3)	43.2 (41.9–44.5)	44.1 (42.8–45.4)	44.3 (43.0–45.7)	44.4 (43.2–45.7)	44.1 (42.8–45.4)	45.4 (44.0–46.9)	46.5 (45.2–47.8)	47.8 (46.4–49.1)				
Alcohol consumption (n)	12,071	13,583	11,974	12,321	12,572	12,274	12,079	12,969	12,588				
At-risk alcohol level	35.7 (34.3–37.1)	35.7 (34.4–37.0)	35.2 (33.9–36.6)	34.5 (33.1–35.9)	33.3 (32.0–34.7)	33.1 (31.8–34.4)	31.6 (30.2–32.9)	31.7 (30.3–33.0)	29.6 (28.2–30.9)				
Responsible drinker	45.0 (43.8–46.3)	45.1 (43.9–46.4)	45.3 (44.0–46.6)	44.7 (43.4–45.9)	44.3 (43.1–45.6)	45.3 (44.0–46.5)	46.5 (45.2–47.8)	45.3 (44.2–46.5)	46.6 (45.3–47.9)				
Non-drinker	19.3 (18.2–20.4)	19.2 (18.1–20.3)	19.5 (18.3–20.7)	20.9 (19.6–22.1)	22.3 (21.1–23.6)	21.7 (20.5–22.8)	22.0 (20.7–23.2)	23.0 (21.8–24.2)	23.8 (22.5–25.1)				

(continued)

Table 13.2b (continued): Prevalence of patient risk factors among adult males 18+ attending general practice at least once, 2007–08 to 2015–16

Risk factor	Per cent (95% CI)											↑ ^(a) ↓
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16			
Adult males (aged 18 years and over)	11,784	13,228	11,613	11,954	12,252	11,827	11,687	12,665	12,194			
Number of risk factors^(c) (n)	11,784	13,228	11,613	11,954	12,252	11,827	11,687	12,665	12,194			
Zero	18.8 (17.8–19.8)	17.5 (16.6–18.4)	18.7 (17.7–19.7)	18.2 (17.2–19.1)	17.9 (17.0–18.9)	18.0 (17.0–19.0)	18.4 (17.5–19.4)	18.8 (17.8–19.8)	18.6 (17.6–19.6)		—	
One	45.8 (44.7–46.9)	47.0 (46.0–48.1)	46.8 (45.7–47.8)	47.9 (46.8–49.1)	48.8 (47.7–49.9)	48.8 (47.7–50.0)	49.1 (48.0–50.3)	48.1 (47.0–49.3)	50.6 (49.4–51.7)		↑	
Two	28.2 (27.1–29.3)	28.2 (27.1–29.2)	27.8 (26.8–28.9)	27.3 (26.2–28.4)	26.7 (25.7–27.8)	26.7 (25.6–27.7)	26.6 (25.5–27.7)	27.4 (26.4–28.5)	25.9 (24.8–27.0)		↓	
Three	7.2 (6.6–7.8)	7.3 (6.7–7.9)	6.7 (6.1–7.3)	6.6 (6.0–7.2)	6.5 (5.9–7.1)	6.5 (5.9–7.1)	5.8 (5.3–6.4)	5.6 (5.1–6.1)	4.9 (4.5–5.4)		↓	

(a) The direction and type of change from 2007–08 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2007–08; and — indicates there was no significant change in 2015–16 compared with 2007–08.

(b) Adult patients aged 18 years and over with a recorded height outside the Australian Bureau of Statistics height range based on age and sex were excluded.

(c) Adult risk factors are: overweight or obesity; daily smoking; or at-risk alcohol consumption.

Note: CI – confidence interval.

Table 13.3a: Patient risk factors among female patients, 2006–07 to 2015–16

Risk factor	Per cent (95% CI)											2015–16
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adult females (aged 18 years and over)	19,410	18,703	19,671	19,735	18,741	19,605	19,064	19,112	19,765	18,932		
Body mass index class^(b) (n)												
Obese	24.2 (23.3–25.1)	24.3 (23.5–25.2)	25.6 (24.8–26.4)	26.2 (25.3–27.0)	27.2 (26.3–28.1)	26.7 (25.8–27.5)	26.6 (25.7–27.5)	28.1 (27.2–29.0)	27.9 (27.0–28.8)	28.9 (28.0–29.8)		
Overweight	30.1 (29.4–30.9)	30.4 (29.7–31.2)	30.9 (30.2–31.6)	29.6 (28.9–30.3)	30.3 (29.6–31.0)	30.2 (29.5–30.9)	29.5 (28.8–30.2)	30.4 (29.7–31.2)	29.3 (28.6–30.1)	29.7 (29.0–30.4)		
Normal	42.2 (41.2–43.2)	41.9 (40.9–43.0)	40.0 (39.1–41.0)	41.1 (40.1–42.0)	39.3 (38.3–40.3)	40.2 (39.3–41.2)	40.4 (39.4–41.4)	38.5 (37.5–39.5)	39.5 (38.4–40.5)	38.5 (37.5–39.5)		
Underweight	3.5 (3.2–3.8)	3.3 (3.0–3.6)	3.4 (3.2–3.7)	3.2 (2.9–3.5)	3.2 (2.9–3.5)	2.9 (2.6–3.1)	3.5 (3.2–3.8)	2.9 (2.7–3.2)	3.3 (3.0–3.6)	3.0 (2.7–3.2)		
Smoking status (n)	18,718	19,081	20,079	20,224	19,301	20,060	19,758	19,625	20,252	19,546		
Daily	14.0 (13.3–14.8)	14.4 (13.7–15.2)	13.3 (12.6–14.0)	13.3 (12.6–14.0)	12.9 (12.2–13.6)	12.6 (11.8–13.3)	12.4 (11.7–13.0)	11.6 (10.9–12.3)	11.9 (11.3–12.6)	11.5 (10.9–12.2)		
Occasional	2.7 (2.5–3.0)	2.6 (2.4–2.9)	2.4 (2.2–2.7)	2.4 (2.2–2.7)	2.4 (2.2–2.7)	2.2 (2.0–2.4)	2.1 (1.9–2.4)	1.9 (1.7–2.2)	2.0 (1.7–2.2)	1.8 (1.5–2.0)		
Previous	23.3 (22.5–24.2)	22.3 (21.4–23.1)	22.5 (21.7–23.3)	22.8 (22.0–23.7)	22.7 (21.8–23.5)	22.6 (21.8–23.5)	22.1 (21.3–22.9)	23.3 (22.4–24.1)	22.4 (21.6–23.3)	22.4 (21.5–23.2)		
Never	59.9 (58.8–61.0)	60.7 (59.6–61.7)	61.7 (60.7–62.7)	61.5 (60.4–62.5)	62.1 (61.0–63.1)	62.6 (61.6–63.7)	63.4 (62.4–64.5)	63.2 (62.2–64.2)	63.7 (62.6–64.8)	64.3 (63.3–65.4)		
Alcohol consumption (n)	18,342	18,715	19,764	19,979	18,869	19,685	19,366	19,290	19,866	19,132		
At-risk alcohol level	23.5 (22.5–24.5)	22.6 (21.6–23.6)	21.8 (20.8–22.7)	23.4 (22.5–24.4)	21.4 (20.5–22.3)	21.5 (20.6–22.5)	20.8 (19.9–21.7)	20.1 (19.2–20.9)	20.1 (19.2–21.0)	20.3 (19.3–21.2)		
Responsible drinker	42.4 (41.3–43.5)	42.6 (41.6–43.7)	42.6 (41.6–43.7)	42.5 (41.5–43.6)	41.5 (40.4–42.6)	41.8 (40.8–42.8)	42.1 (41.0–43.1)	40.8 (39.8–41.9)	40.2 (39.2–41.3)	41.0 (39.9–42.1)		
Non-drinker	34.1 (32.8–35.4)	34.8 (33.5–36.1)	35.6 (34.3–36.9)	34.0 (32.8–35.3)	37.1 (35.7–38.5)	36.7 (35.3–38.0)	37.2 (35.9–38.5)	39.1 (37.8–40.4)	39.7 (38.3–41.0)	38.7 (37.4–40.1)		

(continued)

Table 13.3a (continued): Patient risk factors among female patients, 2006–07 to 2015–16

Risk factor	Per cent (95% CI)											↑ ^(a) ↓
	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adult females (aged 18 years and over)	17,724	18,218	19,204	19,182	18,222	19,149	18,518	18,563	19,287	18,478		
Number of risk factors ^(c) (n)												
Zero	29.8 (28.8–30.7)	29.9 (28.9–30.8)	29.1 (28.1–30.0)	29.5 (28.6–30.4)	28.8 (27.9–29.7)	29.5 (28.6–30.5)	30.2 (29.3–31.2)	29.1 (28.2–30.1)	29.8 (28.8–30.8)	28.7 (27.8–29.6)	—	
One	51.0 (50.1–51.9)	51.4 (50.6–52.3)	52.7 (51.8–53.5)	51.2 (50.3–52.0)	53.1 (52.2–53.9)	52.5 (51.7–53.4)	52.5 (51.6–53.3)	53.7 (52.8–54.5)	53.1 (52.2–53.9)	54.2 (53.4–55.1)	↑	
Two	16.6 (15.9–17.3)	15.8 (15.2–16.5)	15.6 (15.0–16.3)	16.6 (15.9–17.2)	15.5 (14.8–16.2)	15.5 (14.8–16.1)	15.1 (14.5–15.8)	15.0 (14.3–15.6)	14.9 (14.3–15.6)	15.0 (14.3–15.6)	↓	
Three	2.6 (2.3–2.9)	2.9 (2.6–3.2)	2.6 (2.4–2.9)	2.8 (2.5–3.0)	2.6 (2.3–2.9)	2.5 (2.2–2.8)	2.2 (1.9–2.4)	2.2 (2.0–2.5)	2.2 (2.0–2.4)	2.1 (1.8–2.3)	↓	
Female children (aged 2–17 years)^(d) (n)	1,578	1,562	1,555	1,684	1,558	1,606	1,618	1,310	1,617	1,536		
Obese	9.6 (8.1–11.2)	10.6 (8.9–12.2)	10.7 (9.1–12.3)	8.7 (7.3–10.2)	10.1 (8.4–11.8)	10.5 (8.8–12.1)	8.1 (6.7–9.5)	8.5 (7.0–10.1)	8.2 (6.9–9.6)	9.6 (8.0–11.3)	—	
Overweight	17.5 (15.6–19.4)	16.8 (14.9–18.8)	15.4 (13.5–17.2)	18.6 (16.6–20.5)	17.8 (15.9–19.7)	17.4 (15.6–19.3)	17.2 (15.3–19.2)	19.6 (17.3–21.9)	19.2 (17.2–21.3)	17.9 (15.9–19.9)	—	
Normal	63.4 (60.9–66.0)	62.2 (59.6–64.7)	63.7 (61.1–66.2)	62.3 (59.8–64.8)	61.3 (58.8–63.8)	60.5 (58.0–63.1)	63.2 (60.6–65.7)	61.5 (58.7–64.2)	61.2 (58.6–63.7)	61.7 (59.1–64.3)	—	
Underweight	9.4 (7.9–11.0)	10.4 (8.8–12.1)	10.3 (8.7–11.9)	10.4 (8.7–12.0)	10.7 (9.1–12.3)	11.6 (9.9–13.3)	11.5 (9.9–13.1)	10.4 (8.6–12.1)	11.4 (9.7–13.1)	10.7 (9.1–12.3)	—	

(a) The direction and type of change from 2006–07 to 2015–16 is indicated for each result: ↑↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2006–07; ↑↓ indicates a marginally significant change in 2015–16 compared with 2006–07; — indicates there was no significant change in 2015–16 compared with 2006–07.

(b) Adult patients aged 18 years and over with a recorded height outside the Australian Bureau of Statistics height range based on age and sex were excluded.

(c) Adult risk factors are: overweight or obesity; daily smoking; or at-risk alcohol consumption.

(d) Children (aged 2–17 years) with height outside the Australian Bureau of Statistics or Centres for Disease Control height range based on age and sex were excluded.

Note: CI – confidence interval.

Table 13.3b: Prevalence of patient risk factors among adult females 18+ attending general practice at least once, 2007–08 to 2015–16

Risk factor	Per cent (95% CI)										↑ ^(a) ↓
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adult females (aged 18 years and over)	18,703	19,671	19,735	18,741	19,605	19,064	19,112	19,765	18,932		
Body mass index class^(b) (n)											
Obese	23.9 (23.0–24.8)	24.8 (23.9–25.6)	25.6 (24.7–26.5)	26.7 (25.8–27.7)	26.4 (25.5–27.3)	26.0 (25.1–27.0)	27.5 (26.6–28.5)	27.4 (26.4–28.3)	28.2 (27.2–29.1)	↑	
Overweight	29.7 (28.9–30.4)	29.4 (28.7–30.2)	28.8 (28.1–29.6)	29.1 (28.4–29.9)	29.3 (28.5–30.0)	28.4 (27.6–29.1)	29.1 (28.3–29.8)	28.5 (27.7–29.2)	28.5 (27.7–29.2)	–	
Normal	43.1 (42.1–44.2)	42.3 (41.2–43.3)	42.4 (41.4–43.4)	40.9 (39.9–42.0)	41.5 (40.4–42.5)	41.9 (40.9–43.0)	40.3 (39.3–41.4)	40.8 (39.7–41.9)	40.4 (39.3–41.4)	↓	
Underweight	3.3 (3.0–3.6)	3.6 (3.2–3.9)	3.1 (2.8–3.5)	3.2 (2.9–3.5)	2.9 (2.6–3.2)	3.6 (3.3–4.0)	3.1 (2.7–3.4)	3.4 (3.1–3.6)	3.0 (2.7–3.3)	–	
Smoking status (n)	19,081	20,079	20,224	19,301	20,060	19,758	19,625	20,252	19,546		
Daily	15.9 (13.1–16.7)	15.4 (14.6–16.2)	14.6 (13.9–15.4)	14.5 (13.7–15.3)	14.1 (13.3–14.9)	13.8 (13.1–14.6)	13.4 (12.6–14.2)	13.1 (12.4–13.8)	12.8 (12.1–13.5)	–	
Occasional	3.0 (2.7–3.3)	3.0 (2.6–3.3)	2.8 (2.5–3.1)	2.9 (2.6–3.3)	2.6 (2.3–2.9)	2.5 (2.2–2.8)	2.4 (2.1–2.7)	2.3 (2.0–2.6)	2.1 (1.8–2.4)	↓	
Previous	21.7 (20.8–22.5)	21.4 (20.6–22.2)	21.9 (21.1–22.7)	21.5 (20.7–22.4)	21.7 (20.8–22.5)	21.2 (20.4–21.9)	21.9 (21.1–22.7)	21.3 (20.5–22.1)	21.2 (20.3–22.0)	–	
Never	59.4 (58.3–60.5)	60.3 (59.2–61.3)	60.7 (59.6–61.7)	61.0 (60.0–62.1)	61.7 (60.6–62.8)	62.5 (61.4–63.6)	62.3 (61.2–63.4)	63.3 (62.2–64.5)	63.9 (62.8–65.0)	↑	
Alcohol consumption (n)	18,725	19,764	19,797	18,869	19,685	19,366	19,290	19,866	19,132		
At-risk alcohol level	24.0 (23.0–25.0)	23.8 (22.7–24.8)	24.9 (23.9–25.9)	23.1 (22.1–24.1)	23.2 (22.2–24.2)	22.3 (21.3–23.2)	21.6 (20.7–22.5)	21.3 (20.3–22.3)	21.7 (20.7–22.6)	↓	
Responsible drinker	43.4 (42.4–44.5)	43.7 (42.7–44.8)	43.0 (42.0–44.1)	42.4 (41.2–43.5)	42.6 (41.5–43.6)	43.0 (41.9–44.1)	41.9 (40.7–43.0)	41.0 (40.0–42.1)	41.8 (40.6–42.9)	–	
Non-drinker	32.6 (31.3–33.9)	32.5 (31.2–33.8)	32.0 (30.8–33.3)	34.5 (33.1–35.9)	34.2 (32.9–35.6)	34.7 (33.4–36.0)	36.5 (35.1–37.9)	37.6 (36.3–39.0)	36.6 (35.2–38.0)	↑	

(continued)

Table 13.3b (continued): Prevalence of patient risk factors among adult females 18+ attending general practice at least once, 2007–08 to 2015–16

Risk factor	Per cent (95% CI)										↑ ^(a) ↓
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16		
Adult females (aged 18 years and over)											
Number of risk factors^(c) (n)	18,218	19,204	19,182	18,222	19,149	18,518	18,563	19,287	18,478		
Zero	29.8 (28.8–30.8)	29.4 (28.4–30.4)	29.5 (28.5–30.5)	28.9 (28.0–29.9)	29.3 (28.3–30.3)	30.6 (29.6–31.7)	29.6 (28.6–30.6)	30.1 (29.1–31.2)	29.3 (28.3–30.3)	—	
One	50.2 (49.4–51.1)	50.8 (49.9–51.7)	50.1 (49.2–50.9)	51.7 (50.8–52.5)	51.4 (50.5–52.3)	50.9 (50.0–51.8)	51.8 (50.9–52.7)	51.8 (50.9–52.7)	52.7 (51.8–53.5)	↑	
Two	16.6 (16.0–17.3)	16.6 (15.9–17.3)	17.4 (16.6–18.1)	16.3 (15.6–17.1)	16.4 (15.7–17.1)	15.9 (15.2–16.6)	15.9 (15.2–16.6)	15.5 (14.9–16.2)	15.6 (14.9–16.3)	—	
Three	3.3 (3.0–3.6)	3.2 (2.9–3.5)	3.1 (2.8–3.4)	3.0 (2.7–3.4)	2.8 (2.5–3.1)	2.5 (2.3–2.8)	2.7 (2.4–3.0)	2.5 (2.2–2.8)	2.4 (2.1–2.6)	↓	

(a) The direction and type of change from 2007–08 to 2015–16 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2015–16 compared with 2007–08; and — indicates there was no significant change in 2015–16 compared with 2007–08.

(b) Adult patients aged 18 years and over with a recorded height outside the Australian Bureau of Statistics height range based on age and sex were excluded.

(c) Adult risk factors are: overweight or obesity; daily smoking; or at-risk alcohol consumption.

Note: CI – confidence interval.

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Abbreviations

ACRRM	Australian College of Rural and Remote Medicine
AHW	Aboriginal health worker
AIHW	Australian Institute of Health and Welfare
ASGC	Australian Standard Geographical Classification
ATC	Anatomical Therapeutic Chemical (classification)
BEACH	Bettering the Evaluation and Care of Health
BMI	body mass index
CAPS	Coding Atlas for Pharmaceutical Substances
CI	confidence interval (in this report 95% CI is used)
DoH	Australian Government Department of Health
DoHA	Australian Government Department of Health and Ageing
DVA	Australian Government Department of Veterans' Affairs
FACRRM	Fellow of the Australian College of Rural and Remote Medicine
FMRC	Family Medicine Research Centre
FRACGP	Fellow of the Royal Australian College of General Practitioners
FTE	full-time equivalent
GP	general practitioner
HbA1c	haemoglobin, type A1c
ICPC-2	International Classification of Primary Care – Version 2
ICPC-2 PLUS	a terminology classified according to ICPC-2
INR	international normalised ratio
MBS	Medicare Benefits Schedule
OTC	over-the-counter (medications advised for over-the-counter purchase)
Pap	Papanicolaou test
PBS	Pharmaceutical Benefits Scheme
PN	practice nurse
RACGP	Royal Australian College of General Practitioners
RFE	reason for encounter
SAND	Supplementary Analysis of Nominated Data
SAS	Statistical Analysis System

UCL	upper confidence limit
URTI	upper respiratory tract infection
WHO	World Health Organization
Wonca	World Organization of Family Doctors

Symbols

..	intentionally left blank
<	less than
>	more than
<i>n</i>	number
N/A	not applicable
NAv	not available
χ^2	chi-square
↑	indicates a statistically significant increase in 2015–16 when compared with the first year of data reported
↓	indicates a statistically significant decrease in 2015–16 when compared with the first year of data reported
↑	indicates a marginally significant increase in 2015–16 when compared with the first year of data reported
↓	indicates a marginally significant decrease in 2015–16 when compared with the first year of data reported
§	indicates a noteworthy change during the data reporting period
—	indicates no significant change in 2015–16 when compared with the first year of data reported
⊠	rate is less than 0.05 per 100 encounters

Glossary

A1 Medicare items: See *MBS/DVA items: A1 Medicare items*.

Aboriginal: The patient identifies himself or herself as an Aboriginal person.

Activity level: The number of general practice A1 Medicare items claimed during the previous 3 months by a participating GP.

Allied health services: Clinical and other specialised health services provided in the management of patients by allied and other health professionals including physiotherapists, occupational therapists, dietitians, dentists and pharmacists.

Chapters (ICPC-2): The main divisions within ICPC-2. There are 17 chapters primarily representing the body systems.

Chronic problem: See *Diagnosis/problem: Chronic problem*.

Commonwealth concession card: An entitlement card provided by the Australian Government, which entitles the holder to reduced-cost medicines under the Pharmaceutical Benefits Scheme and some other concessions from state and local government authorities.

Complaint: A symptom or disorder expressed by the patient when seeking care.

Component (ICPC-2): In ICPC-2 there are seven components that act as a second axis across all chapters.

Co-located health service: a health service (for example, physiotherapist, psychologist etc) located in the practice building or within 50 metres of the practice building, available on a daily or regular basis.

Co-operative after-hours arrangements: the normal after-hours arrangements for patient care provision is undertaken in co-operation with another practice(s).

Consultation: See *Encounter*.

Diagnosis/problem: A statement of the provider's understanding of a health problem presented by a patient, family or community. GPs are instructed to record at the most specific level possible from the information available at the time. It may be limited to the level of symptoms.

- *New problem:* The first presentation of a problem, including the first presentation of a recurrence of a previously resolved problem, but excluding the presentation of a problem first assessed by another provider.
- *Old problem:* A previously assessed problem that requires ongoing care, including follow-up for a problem or an initial presentation of a problem previously assessed by another provider.
- *Chronic problem:* A medical condition characterised by a combination of the following characteristics: duration that has lasted, or is expected to last, 6 months or more, a pattern of recurrence or deterioration, a poor prognosis, and consequences or sequelae that impact on an individual's quality of life. (Source: O'Halloran J, Miller GC, Britt H 2004. *Defining chronic conditions for primary care with ICPC-2*. Fam Pract 21(4):381–6).
- *Work-related problem:* Irrespective of the source of payment for the encounter, it is likely in the GP's view that the problem has resulted from work-related activity or workplace exposure, or that a pre-existing condition has been significantly exacerbated by work activity or workplace exposure.

Encounter: Any professional interchange between a patient and a GP.

Indirect: Encounter where there is no face-to-face meeting between the patient and the GP but a service is provided (for example, prescription, referral).

Direct: Encounter where there is a face-to-face meeting of the patient and the GP. Direct encounters can be further divided into:

- *MBS/DVA-claimable*: Encounters for which GPs have recorded at least one MBS item number as claimable, where the conditions of use of the item require that the patient be present at the encounter.
- *Workers compensation*: Encounters paid by workers compensation insurance.
- *Other paid*: Encounters paid from another source (for example, state).

Full-time equivalent (FTE): A GP working 35–45 hours per week.

General practitioner (GP): A medical practitioner who provides primary comprehensive and continuing care to patients and their families within the community (*Source*: Royal Australian College of General Practitioners).

Generic medication: See *Medication: Generic*

GP consultation service items: See *MBS/DVA items: GP consultation service items*.

MBS/DVA items: MBS item numbers recorded as claimable for activities undertaken by GPs and staff under the supervision of GPs. In BEACH, an MBS item number may be funded by Medicare or by the Department of Veterans' Affairs (DVA).

- *A1 Medicare items*: Medicare item numbers 1, 2, 3, 4, 13, 19, 20, 23, 24, 25, 33, 35, 36, 37, 38, 40, 43, 44, 47, 48, 50, 51, 601, 602.
- *GP consultation service items*: Includes GP services provided under the MBS professional services category including MBS items classed as A1, A2, A5, A6, A7, A14, A17, A18, A19, A20, A22, A23, A27, A30 and selected items provided by GPs classified in A11 and A15.
- *MBS/DVA item categories*: (Note: item numbers recorded in BEACH in earlier years which are no longer valid are mapped to the current MBS groups).
 - *Surgery consultations*: Identified by any of the following item numbers: short 3, 52, 5000, 5200; standard 23, 53, 5020, 5203; long 36, 54, 2143, 5040; prolonged 44, 57, 2195, 5060, 5208.
 - *Residential aged care facility*: Identified by any of the following item numbers: 20, 35, 43, 51, 92, 93, 95, 96, 5010, 5028, 5049, 5067, 5260, 5263, 5265, 5267.
 - *Home or institution visits (excluding residential aged care facilities)*: Identified by any of the following item numbers: 4, 19, 24, 33, 37, 40, 47, 50, 58, 59, 60, 65, 87, 89, 90, 91, 503, 507, 5003, 5023, 5043, 5063, 5220, 5223, 5227, 5228.
 - *GP mental health care*: Identified by any of the following item numbers: 2700, 2701, 2702, 2704, 2705, 2710, 2712, 2713, 2715, 2717, 2721, 2723, 2725.
 - *Chronic disease management items*: Identified by any of the following item numbers: 720, 721, 722, 723, 724, 725, 726, 727, 729, 730, 731, 732.
 - *Health assessments*: Identified by any of the following item numbers: 700, 702, 703, 704, 705, 706, 707, 708, 709, 710, 712, 713, 714, 715, 717, 718, 719.
 - *Case conferences*: Identified by any of the following item numbers: 139, 734, 735, 736, 738, 739, 740, 742, 743, 744, 747, 750, 762, 765, 771, 773, 775, 778.
 - *Attendances associated with Practice Incentives Program payments*: Identified by any of the following item numbers: 2497, 2501, 2503, 2504, 2506, 2507, 2509, 2517, 2518, 2521, 2522, 2525, 2526, 2546, 2547, 2552, 2553, 2558, 2559, 2574, 2575, 2577, 2598, 2600, 2603, 2606, 2610, 2613, 2616, 2620, 2622, 2624, 2631, 2633, 2635, 2664, 2666, 2668, 2673, 2675, 2677, 2704, 2705.
 - *Practice nurse/Aboriginal health worker/allied health worker services*: Identified by any of the following item numbers: 711, 10950, 10951, 10960, 10966, 10970, 10986, 10987, 10988, 10989, 10993, 10994, 10995, 10996, 10997, 10998, 10999, 16400, 82210.
 - *Acupuncture*: Identified by any of the following item numbers: 173, 193, 195, 197, 199.

- *Diagnostic procedures and investigations*: Identified by item numbers: 11000–12533.
- *Therapeutic procedures*: Identified by item numbers: 13206–23042 (excluding 16400).
- *Surgical operations*: Identified by item numbers: 30001–52036.
- *Diagnostic imaging services*: Identified by item numbers: 55037–63000.
- *Pathology services*: Identified by item numbers: 65120–74991.

Medication:

- *Generic*: The generic name of a medication is its non-proprietary name, which describes the pharmaceutical substance(s) or active pharmaceutical ingredient(s).
- *GP-supplied*: The medication is provided directly to the patient by the GP at the encounter.
- *Over-the-counter (OTC)*: Medication that the GP advises the patient to purchase OTC (a prescription is not required for the patient to obtain an OTC medication).
- *Prescribed*: Medications that are prescribed by the GP (that is, does not include medications that were GP-supplied or advised for over-the-counter purchase).

Medication status:

- *New*: The medication prescribed/provided at the encounter/advised is being used for the management of the problem for the first time.
- *Continued*: The medication prescribed/provided at the encounter/advised is a continuation or repeat of previous therapy for this problem.
- *Old*: See *Continued*.

Morbidity: Any departure, subjective or objective, from a state of physiological wellbeing. In this sense, sickness, illness and morbid conditions are synonymous.

Non-English speaking background: The patient reported that the primary language spoken at home is not English.

Patient status: The status of the patient to the practice.

- *New patient*: The patient has not been seen before in the practice.
- *Patient seen previously*: The patient has attended the practice before.

Problem managed: See *Diagnosis/problem*.

Provider: A person to whom a patient has access when contacting the healthcare system.

Reasons for encounter (RFEs): The subjective reasons given by the patient for seeing or contacting the general practitioner. These can be expressed in terms of symptoms, diagnoses or the need for a service.

Recognised GP: A medical practitioner who is:

- vocationally recognised under Section 3F of the *Health Insurance Act*, or
- a holder of the Fellowship of the Royal Australian College of General Practitioners who participates in, and meets the requirements for, quality assurance and continuing medical education as defined in the Royal Australian College of General Practitioners (RACGP) Quality Assurance and Continuing Medical Education Program, or
- undertaking an approved placement in general practice as part of a training program for general practice leading to the award of the Fellowship of the Royal Australian College of General Practitioners, or undertaking an approved placement in general practice as part of some other training program recognised by the RACGP as being of equivalent standard. (*Source*: Commonwealth Department of Health and Aged Care (DHAC) 2001. *Medicare Benefits Schedule book*. Canberra: DHAC).

Referral: The process by which the responsibility for part, or all, of the care of a patient is temporarily transferred to another health care provider. Only new referrals to specialists and allied health services, and for hospital and residential aged care facility admissions arising at a recorded encounter are included. Continuation referrals are not included. Multiple referrals can be recorded at any one encounter.

Repatriation Health Card: An entitlement card provided by the Department of Veterans' Affairs that entitles the holder to access a range of repatriation health care benefits, including access to prescription and other medications under the Pharmaceutical Benefits Scheme.

Rubric: The title of an individual code in ICPC-2.

Significant: This term is used to refer to a statistically significant result. Statistical significance is measured at the 95% confidence level in this report.

Torres Strait Islander: The patient identifies himself or herself as a Torres Strait Islander person.

Work-related problem: See *Diagnosis/problem*.

Appendices

Appendix 1: Example of a 2015–16 recording form

Encounter Number	Date of encounter	Date of Birth	Sex M <input type="checkbox"/> F <input type="checkbox"/>	Patient Postcode	PATIENT SEEN BY GP <input type="checkbox"/>	PATIENT NOT SEEN BY GP <input type="checkbox"/>
START Time AM / PM (please circle)	1. Patient Reasons for Encounter	2.	3.	New Patient <input type="checkbox"/>	Medicare (if applicable) 1. <input type="checkbox"/>	Home visit (not RACF) <input type="checkbox"/>
				Veterans Affairs Card <input type="checkbox"/>	Workers comp paid <input type="checkbox"/>	
				NESB <input type="checkbox"/>	Other paid <input type="checkbox"/>	
				Aboriginal <input type="checkbox"/>	No charge <input type="checkbox"/>	
				Torres Strait Islander <input type="checkbox"/>		

Diagnosis/Problem ①:		Problem Status		Diagnosis/Problem ②:		Problem Status	
Drug Name AND Form for this problem	Strength of product	Dose	Frequency	No. of Rpts	OTC	GP Supply	Drug status New / Cont.
1.							
2.							
3.							
4.							

Procedures, other treatments, counselling this consult for this problem
 1. 2. Prac Nurse?

Diagnosis/Problem ③:		Problem Status		Diagnosis/Problem ④:		Problem Status	
Drug Name AND Form for this problem	Strength of product	Dose	Frequency	No. of Rpts	OTC	GP Supply	Drug status New / Cont.
1.							
2.							
3.							
4.							

Procedures, other treatments, counselling this consult for this problem
 1. 2. Prac Nurse?

NEW REFERRALS - ADMISSIONS		IMAGING/Other tests		PATHOLOGY		PATHOLOGY (cont)	
Problem(s)	Body site	Problem(s)	Body site	Problem(s)	Body site	Problem(s)	Body site
1. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		1. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		1. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		1. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>	
2. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		2. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		2. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		2. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>	
3. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		3. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		3. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>		3. <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>	

Patient reported Height: <input type="text"/> cm	Weight: <input type="text"/> kg	To the patient if 18+: Which best describes your tobacco smoking status? Smoke daily <input type="checkbox"/> Smoke occasionally <input type="checkbox"/> Previous smoker <input type="checkbox"/> Never smoked <input type="checkbox"/>	To the patient if 18+: How often do you have a drink containing alcohol? Never <input type="checkbox"/> Monthly or less <input type="checkbox"/> Once a week/fortnight <input type="checkbox"/> 2-3 times a week <input type="checkbox"/> 4+ times a week <input type="checkbox"/>	How many 'standard' drinks do you have on a typical day when you are drinking? <input type="text"/>	How often do you have 6 or more standard drinks on one occasion? Never <input type="checkbox"/> Less than monthly <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Daily or almost daily <input type="checkbox"/>	FINISH Time <input type="text"/> : <input type="text"/> AM / PM (please circle)
--	---------------------------------	---	--	--	---	--

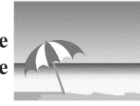
Appendix 2: GP characteristics questionnaire, 2015–16



THE UNIVERSITY OF SYDNEY

GP profile

Family Medicine Research Centre



Doctor Identification Number

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Please answer the following questions ABOUT YOU

1. Sex Male / Female (Please circle)
2. Age
3. How many years have you spent in general practice?
4. Country of graduation (primary medical degree):
 Australia Other: (specify) _____
5. How many direct patient care hours do you work per week?
(Include hours of direct patient care, instructions, counselling etc and other services such as referrals, prescriptions, phone calls etc.)
6. Are you a GP Registrar (i.e. in training)? Yes / No
7. Do you hold FRACGP? Yes / No
8. Do you hold FACRRM? Yes / No
9. Do YOU use a computer at your major practice? Yes / No
 If 'yes', which clinical software is used? (specify) _____
10. Over the past four weeks have you provided any patient care...
 (a) in a residential aged care facility? Yes / No
 (b) as a salaried/sessional hospital medical officer? Yes / No
11. At how many practice locations do you usually work, in a regular week
12. Did any of your BEACH consultations take place in an Aboriginal Community Controlled Health Service?
(Circle one option)
 No..... 1
 Yes - all 2
 Yes - some (which dates?) 3

.....
Please answer the following questions ABOUT YOUR MAJOR PRACTICE

13. Is your major practice a teaching practice?
(Circle all that apply):
 For undergraduates 1
 For junior doctors 2
 For GP registrars 3
 No 4

14. Postcode of major practice?

15. Which Primary Health Network? _____

16. What was your Medicare Local? _____

17. Is the practice accredited? Yes / No

18. How many individuals (ie. headcount) and how many full-time equivalents (FTE*) for each type of professional listed below?

**Each FTE is defined as working 35-45 hours per week e.g. 2 GPs each working 20 hours/wk is recorded as 2 individual GPs and 1 FTE; 1 practice nurse working 20 hours/wk is recorded as 1 individual and 0.5 FTE.*

No. individuals No. FTEs

(a) GPs (including yourself)

(b) Practice nurses

19. Health services located or available (on a daily or regular basis) at the practice site?

<i>(Tick all that apply)</i>	<u>In the practice</u>	<u>Not in the practice, but in the building or within 50 metres</u>
Physiotherapist.....	<input type="checkbox"/>	<input type="checkbox"/>
Psychologist.....	<input type="checkbox"/>	<input type="checkbox"/>
Dietitian.....	<input type="checkbox"/>	<input type="checkbox"/>
Podiatrist.....	<input type="checkbox"/>	<input type="checkbox"/>
Pathology collection centre/lab..	<input type="checkbox"/>	<input type="checkbox"/>
Imaging.....	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes educator.....	<input type="checkbox"/>	<input type="checkbox"/>
Specialist(s) <i>(specify):</i> _____	<input type="checkbox"/>	<input type="checkbox"/>
Other <i>(specify):</i> _____	<input type="checkbox"/>	<input type="checkbox"/>
NONE	<input type="checkbox"/>	<input type="checkbox"/>

20. Normal after-hours arrangements?

- (Circle all that apply)*
- Practice does its own..... 1
 Co-operative with other practices 2
 Deputising service..... 3
 Other (specify)..... 4
 None 5

*Thank you for participating in the BEACH PROGRAM.
 Please return this form with the completed BEACH pad.*

Appendix 3: Patient information card, 2015–16



Family Medicine Research Centre



INFORMATION FOR PATIENTS

The *BEACH*® Project

Today your doctor is taking part in a National Survey of general practice called *BEACH*® (*Bettering the Evaluation and Care of Health*). This study is being done by the Family Medicine Research Centre, University of Sydney.

Your Doctor will be recording information about each patient he/she sees (age, gender etc), the problems that you see the Doctor about and the treatments given to you. **There are no names on the forms so you cannot be identified.** The information about today's visit to the doctor will be one record in a set of 100,000 records collected in general practices across Australia every year.

This information will be used by researchers to describe what happens in general practice and to look at different aspects of health care; by government departments to help them plan for our future health; and by pharmaceutical companies to gain a picture of the problems being treated with the drugs they produce.

Remember: your name will not be on the form and no information will ever be released which could possibly let anyone know who you are. However, if you do not wish your doctor to record any unidentified information about you or your visit **please tell your Doctor as soon as you go in.** Such a decision will not affect the consultation with your doctor in any way.

SEE OVER FOR PROJECT DETAILS

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BEACH[®] Program details

This program has been approved by the Ethics Committee of the University of Sydney. The data are being collected in accordance with the Privacy Act 1988 as amended.

Organisations contributing financially to the conduct of this study in 2015–2016 are:

- ✦ The Australian Government Department of Health
- ✦ AstraZeneca Pty Ltd (Australia)
- ✦ bioCSL (Australia) Pty Ltd
- ✦ Novartis Pharmaceuticals Australia Pty Ltd

BEACH is endorsed
by
the Royal Australian College
of General Practitioners



BEACH is endorsed
by
the Australian Medical Association



FURTHER INFORMATION

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Westmead 2145	Web: sydney.edu.au/medicine/fmrc/

Any person with concerns or complaints about the conduct of this research study can contact The Manager, Research Integrity and Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2 8627 8177 (Facsimile); ro.humanethics@sydney.edu.au (Email).

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Appendix 4: Code groups from ICPC-2 and ICPC-2 PLUS

Available at: hdl.handle.net/2123/15482.

- Table A4.1: Code groups from ICPC-2 and ICPC-2 PLUS – reasons for encounter and problems managed
- Table A4.2: Code groups from ICPC-2 and ICPC-2 PLUS – chronic problems
- Table A4.3: Code groups from ICPC-2 and ICPC-2 PLUS – clinical treatments
- Table A4.4: Code groups from ICPC-2 and ICPC-2 PLUS – procedures
- Table A4.5: Code groups from ICPC-2 and ICPC-2 PLUS – clinical measurements
- Table A4.6: Code groups from ICPC-2 and ICPC-2 PLUS – referrals
- Table A4.7: Code groups from ICPC-2 and ICPC-2 PLUS – pathology test orders (MBS groups)
- Table A4.8: Code groups from ICPC-2 and ICPC-2 PLUS – imaging test orders (MBS groups)

This report highlights changes in general practice activity over the most recent decade (April 2006 to March 2016) measured by the University of Sydney's BEACH program, a continuous study of general practice activity in Australia. The BEACH program closed in 2016, after 18 years of continuous data collection.

Over the decade, 9,721 general practitioners (GPs) provided details of 972,100 GP–patient encounters. The report highlights changes in the characteristics of GPs and the patients they see, the problems managed, and the treatments provided. Changes in prevalence of measured risk factors (overweight, obesity, smoking and at-risk alcohol use) are described for subsamples of more than 30,000 adult patients each year. Changes in the prevalence of overweight and obesity over the decade are also described for annual subsamples of more than 2,500 children aged 2–17 years.



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