THE UNIVERSITY OF SYDNEY

A decade of Australian general practice activity

2005–06 to 2014–15

Family Medicine Research Centre

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A decade of Australian general practice activity 2005–06 to 2014–15

Bettering the Evaluation and Care of Health

Helena Britt, Graeme C Miller, Joan Henderson, Clare Bayram, Lisa Valenti, Christopher Harrison, Ying Pan, Carmen Wong, Janice Charles, Julie Gordon, Allan J Pollack, Timothy Chambers

Family Medicine Research Centre
Sydney School of Public Health
University of Sydney

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Any enquiries about or comments on this publication should be directed to:

The Family Medicine Research Centre
Sydney School of Public Health, University of Sydney
Level 7, 16–18 Wentworth Street, Parramatta NSW 2150
Phone: +61 2 9845 8151; Fax: +61 2 9845 8155
Email: gpstats@fmrc.org.au

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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 is now in its 18th year.

From June 2005 to June 2014 the population of Australia rose by 16%, from 20.2 million to 23.5 million, and from June 2005 to June 2014 the proportion aged 65 years and over rose by 35% (from 2.6 to 3.5 million). About 85% of the Australian population claimed at least one GP consultation from Medicare in both 2005–06 and 2014–15. The number of Medicare-claimed GP consultation items (excluding practice nurse items) grew by 36% from 101.1 million to 137.3 million. The average number of GP visits per head of population rose from 5.0 to 5.8, and the average for those who visited at least once rose from 5.9 visits to 6.8.

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 2005–06 to 2014–15. The report is based on details of almost one million GP–patient encounters from 9,773 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 2014–15 in the BEACH program, *General practice activity in Australia 2014–15*.[1] This companion report contains a feature chapter investigating changes in the care of older people in general practice over 15 years, 2000–01 to 2014–15 (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 (37% in 2005–06 to 43% in 2014–15), as did the proportion aged 55 years and over (from 39% to 45%). Average hours in patient care decreased from 39 to 37 hours per week, with a decrease from 42% to 30% of GPs working more than 40 hours.

The proportion of GP participants who graduated from their primary medical degree in Australia decreased from 72% to 67%. GP participants holding Fellowship of the Royal Australian College of General Practitioners increased from 41% to 64%.

The move toward larger practices continued, with decreased proportions of participants working in solo practice (13% to 9%), and in practices of 2–4 individual GPs (35% to 21%), while the proportion in practices of 10 or more GPs more than doubled, from 13% to 29%. The proportion using deputising services for some or all of their after-hours patient care increased from 51% to 57%.

The encounters (Chapter 5)

As a proportion of all MBS/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 MBS/DVA-claimable encounters significantly increased from 13.9 minutes to 14.7 minutes, and in the last 2 years the median length increased from 12 to 13 minutes.

The patients at encounters (Chapter 6)

Patients aged 65+ years accounted for an increasing proportion of GPs' workload (from 27% to 31% of encounters). This change affected all aspects of general practice as older patients are more likely to have more problems (particularly chronic conditions) managed at encounters and are more likely to have multimorbidity.

Encounters with patients new to the practice decreased from 9% to 6% perhaps reflecting the increased proportion of workload spent with older patients. The proportion with Repatriation Health Cards decreased from 3% to 2%, probably due to the decline in numbers of World War 2 veterans and their partners.

There was no significant change in the number of patient reasons for encounter (RFEs) recorded per 100 encounters, but RFEs 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 such as sickness certificates.

Problems managed at encounters (Chapter 7)

In 2014–15, GPs managed 155 problems per 100 encounters, significantly more than a decade earlier (146 per 100). The combination of the increased number of problems managed at encounters and the increased number of GP visits, suggests 65 million more problems were managed at GP–patient encounters in Australia in 2014–15 than in 2005–06.

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 complaints, prescriptions, gastro-oesophageal reflux disease, anxiety, test results, administrative procedure, vitamin/nutritional deficiency, atrial fibrillation/flutter, and abnormal test results. The last of these is likely to be due to the increasing number of tests per order which increases the chance of an abnormal result being reported, and consequently managed.

There were significant decreases in management rates of hypertension and immunisation/vaccination. The latter is probably due to delayed supply of the influenza vaccination prior to the 2015 flu season, which meant that the vaccination period began after the conclusion of the 2014–15 BEACH year.

The management rate of chronic conditions in 2014–15 did not differ from the rate in 2005–06. The most commonly managed were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis and lipid disorders. There were increased management rates of depressive disorder, oesophageal disease, atrial fibrillation/flutter, 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 2014–15 there were:

- 23 million more chronic problem management occasions in general practice in 2014–15 than a decade earlier, even without an change in their management rate by GPs
- 2.4 million more GP management occasions of depressive disorder, 1.4 million more of oesophageal disease, 880,000 more of atrial fibrillation/flutter, 520,000 more of chronic back pain, and 480,000 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. Readers should be aware that 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 from 2005–06 to 2014–15 (described as rates per 100 problems managed) are summarised below.

- **Medications** prescribed/supplied/advised decreased, from 71 to 67 per 100 problems, largely due to a significant decrease in the rate of prescribed medications and GP-supplied medications.
  - *Prescribed medications* decreased significantly from 59 to 55. However, due to the increased attendance rate, we estimated there were 31 million more prescriptions being given nationally in 2014–15 than a decade earlier.
  - *GP-supplied medications* significantly decreased from 6.0 to 5.2 but this rate varied widely over the decade.
  - The rate of *advised over-the-counter (OTC) medications* did not change over the decade.
- **Clinical treatments** were provided at similar rates in 2005–06 (20 per 100 problems managed) and 2014–15 (22 per 100). However, due to the increased number of problems managed, clinical treatments per 100 encounters increased from 29 to 34, suggesting about 17 million more were provided nationally in 2014–15 than in 2005–06.
- **Procedures** undertaken significantly increased, from 10 to 11, and combined with the increased number of problems managed, rose from 14 to 17 per 100 encounters. The extrapolated effect was about 9 million more procedures undertaken nationally in 2014–15.
- **Referrals** to medical specialists rose from 5.6 to 6.2, and those referred to allied health services increased from 2.0 to 3.3. This increase, combined with more problems managed and more visits, suggests about 10 million more GP referrals were made nationally in 2014–15 than in 2005–06, which included about 5 million more to medical specialists and 4 million more to allied health services.
- **Pathology tests**/batteries orders increased by 15%, from 26 tests/batteries to 30. Tests ordered per 100 encounters increased from 39 to 47, which suggests about 26 million more tests/test batteries were ordered nationally in 2014–15.
- **Imaging tests** ordered increased from 6 to 7 per 100 problems. Total imaging orders per 100 encounters increased significantly from 9 to 12, suggesting nationally there were 7 million more tests ordered in 2014–15 than in 2005–06.

Medications (Chapter 9)

- Drug types prescribed less often in 2014–15 compared with 2005–06 included antibacterials for systemic use, systemic anti-inflammatory medications and sex hormones. Those prescribed more often included psychoanaleptics, digestive drugs for acid-related disorders and antiepileptic drugs.
  - Individual drugs prescribed more often included esomeprazole, oxycodone, rosuvastatin, pantoprazole, and pregabalin. In contrast, some decreased, including amoxycillin, plain paracetamol and paracetamol/codeine combination products.
  - Five repeats were recorded for a greater proportion of prescriptions, and one repeat for a smaller proportion of prescriptions.
- Eight of the top 10 GP-supplied medications were vaccines, and rates of most childhood vaccines increased. However, the GP supply rate of influenza virus vaccine significantly decreased after peaks in previous years. There was a significant increase in GP supply of vitamin B12.
- The rate of advice for OTC medications did not change but there was a significant rise in advised purchase of vitamin D3 (cholecalciferol). The increase started in 2008–09, about the same time as a doubling of the management rate of nutritional/vitamin deficiency.

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 3.9 per 100 problems managed in 2014–15. There was no significant change in the rate between 2005–06 and 2014–15.
- There were significant increases in the rate GPs provided advice/education about medication, counselling/advice about lifestyle, and in other administrative procedures/documentation.
- There was a marginal decrease in the rate of counselling/advice about nutrition/weight and exercise over the decade.
- There was increased use of clinical treatments in management of general check-ups.

Procedures

The increased rate of procedures undertaken in general practice was particularly reflected in a five-fold increase in international normalised ratio (INR) tests, a small but significant increase in electrical tracings, and a marginal increase in dressings. There was an increase in the likelihood that a procedure would be used in the management of general check-ups and atrial fibrillation/flutter.

Practice nurse/Aboriginal health worker activity

Practice nurse/Aboriginal health worker (PN/AHW) involvement in GP-patient encounters increased over the decade. They were involved in 4% of encounters in 2005–06, their involvement peaked at 9% in 2009–10, then decreased to 7% by 2014–15.The proportion of problems managed with their assistance increased from 3% in 2005–06 to 6% in 2009–10, then gradually decreased to 5% by 2014–15. Their assistance was usually in procedural work, while their provision of clinical treatments (such as advice and health education) remained infrequent. There were significant increases in frequency of their involvement in management of check-ups, diabetes, atrial fibrillation/flutter, and vitamin/nutritional deficiency.

Referrals (Chapter 11)

The likelihood that a problem managed would be referred increased from 8% to 10%. The rate of referral to medical specialists rose from 5.6 per 100 problems managed in 2005–06 to 6.2 per 100 in 2014–15. The rate of referral to allied health services increased from 2.0 per 100 problems managed in 2005–06 to 3.3 in 2014–15. Referrals to psychologists rose four-fold and those to podiatrists/ chiropodists doubled.

Tests and investigations (Chapter 12)

Pathology test orders

- There was no change in the proportion of problems involving at least one pathology test (13% in 2005–06 and 2014–15). However, there was a 15% increase in the number of tests/batteries ordered, due to GPs ordering more tests per problem once the decision to order had been made. The largest increase was in orders for chemical pathology, which increased from 15 to 18 per 100 problems managed.
- The proportion of encounters involving at least one pathology test increased from 16% to 18%, and the rate of ordering increased from 39 to 47 tests per 100 encounters. This suggests that pathology was ordered at about 8 million more encounters nationally in 2014–15 than 10 years earlier, and there were 26 million more tests ordered nationally. These increases were driven by the rise in the number of problems managed at encounter and the increased GP attendance rate.

Imaging orders

- The likelihood of GPs ordering imaging at an encounter rose from 8% to 10%, suggesting such orders were placed at 6 million more encounters nationally in 2014–15 than a decade earlier.
- There was a move away from ordering diagnostic radiology toward ultrasound imaging. Ultrasounds were the most commonly ordered, and ordering 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 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 22% in 2005–06 to 28% in 2014–15. The prevalence of overweight (34–35%) and of underweight (2–3%) did not change. Prevalence of normal weight decreased from 41% to 36%.
- *Children* (*n* = 3,000–4,000 per year): There was a marginally significant decrease in the prevalence of obesity among sampled children (aged 2–17 years) from 11% to 9%, but no change in prevalence of overweight or underweight.

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 17% and 4% respectively in 2005–06, to 14% and 2% in 2014–15.

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 26% in 2005–06 to 23% in 2014–15, and there was an increase in non-drinkers from about 29% to 34%.

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 49% to 52%. Throughout the decade, about one-fifth of patients had two risk factors. There was a significant decrease in the proportion of sampled patients with 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 2014–15. Over this time the prevalence in the population attending at least once, of:

- obesity increased from 23% to 27%
- daily smoking decreased from 19% to 17%
- at-risk alcohol consumption decreased from 29% to 26%.

The proportion of patients with only one risk factor increased from 48% to 50%, and there was a corresponding decrease in the prevalence of patients with three risk factors (overweight/obesity and daily smoking and at-risk alcohol consumption) from 5% to 4%.

1 Introduction

This report is the 39th 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 2005–06 to 2014–15 inclusive.

Released in parallel with this report is a more detailed report of results for 2014–15 in the BEACH program, *General practice activity in Australia 2014–15*,[1] available at <purl.library.usyd.edu.au/sup/9781743324523>.

BEACH is a continuous national study of general practice activity in which ever-changing random samples of about 1,000 general practitioners (GPs) participate each year. Each participating GP records details of 100 consecutive GP–patient encounters with consenting patients.

The BEACH program began in April 1998 and was the culmination of about 20 years 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 has been conducted by the FMRC alone. BEACH is currently supported financially by government and private industry (see Acknowledgments).

At the end of its 17th year (March 2015), the BEACH database included records for almost 1.7 million GP–patient encounters from 16,747 GP participants, representing 10,340 individual GPs. This book investigates results of each of the 10 years of data to identify changes that occurred over the decade 2005–06 to 2014–15. This report is based on information about 1 million GP–patient encounters provided by 9,773 participating GPs.

The structure of this report follows the usual approach of the 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 2005–06 and 2014–15 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 from the FMRC. Details are provided on the FMRC website <sydney.edu.au/medicine/fmrc/>.

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 16% between June 2005 (20.2 million) and June 2014 (23.5 million).[2] Over the same period:

- the proportion of the population aged 65 years and over increased by 35%, from 2.6 million people to 3.5 million[2]
- the number of Australians aged 85 years and over increased by 51% from 302,000 people to 457,000.[2]

Australia's population is projected to change significantly over the coming decades. The number of Australians aged 65 and over is projected to more than double, from 3.6 million in 2014–15 to 8.9 million by 2054–55. 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] Readers interested the changes in the care of older people in general practice should see the feature (Chapter 14) in the companion report *General practice activity in Australia 2014–15*.[1]

Population ageing 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 head of population 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

- The amount spent on general practice services (total non-referred attendances including GP/vocationally recognised GP, Enhanced Primary Care, other, and practice nurse items) increased from $3.8 billion in the 2005–06 financial year to $6.8 billion in the 2014–15 financial year.[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 2012 there were 25,958 medical practitioners self-identifying as GPs, making up 25,063 full-time equivalents (FTE, based on a 40-hour week).[8] More recent general practice workforce statistics from the Australian Government Department of Health (DoH) indicated that in 2013–14, there were 32,401 GPs (defined as GPs or Other Medical Practitioners who provided at least one Medicare claimed GP service during that year), making up 19,365 FTE.[9]

- In the April 2014 to March 2015 year, 85.8% of the Australian population claimed at least one GP service from Medicare (personal communication, DoH, June 2015). In the same period, Medicare paid rebates for about 137.3 million claimed general practice service items (total non-referred attendances excluding practice nurse items),[10] at an average of about 5.8 GP visits per head of population or 6.8 visits per person who visited at least once. This equates to about 2.6 million GP–patient encounters per week.
- A decade earlier, in the 2005–06 financial year, total Medicare claims for GP–patient encounters numbered 101.1 million,[6] an average attendance rate of 5.0 per head of population.

Medicare statistics provide information about the frequencies and costs of visits claimed from Medicare for GP services. BEACH gives us an understanding of the content of GP–patient encounters and the services and treatments that GPs provide. The BEACH program aims 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. Integration can provide a more comprehensive picture of the health and health care of the Australian community. 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 2014–15* (Sections 1.2 and 1.3).[1]

1.2 Access to BEACH data

Different bundles of BEACH data are available to the general public, to BEACH-participating organisations, and to other organisations and researchers.

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

Since April 1998, 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 additional 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 from April 1998 to March 2015 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*[11]
- April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*[12]
- August 2006 to March 2014 were published in each of the BEACH annual reports[13-20]
- April 2014 to March 2015 are included in Chapter 15 of *General practice activity in Australia 2014–15*.[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.

Participating organisations

Organisations providing funding for the BEACH program receive summary reports of the encounter data quarterly, and standard reports or specifically designed analyses about their subjects of interest. Participating organisations also have direct access to straightforward analyses on any selected problem, medication, pathology or imaging test through an interactive web server. All data made available to participating organisations have been further 'de-identified'. Patients are not identifiable even from the original encounter data forms, but are further stripped of date of birth (replaced with age in years and months) and postcode of residence (replaced with state and area type). GP characteristics data are provided only in the form of grouped output (for example, GPs aged less than 35 years) to any organisation.

External purchasers of reports

Non-contributing organisations may purchase standard reports or other ad hoc analyses. Charges are outlined at <sydney.edu.au/medicine/fmrc/beach/data-reports/for-purchase>. The FMRC should be contacted for specific quotations. Contact details are provided at the front of this publication.

Analysis of the BEACH data is a complex task. The FMRC has designed standard reports that cover most aspects of a subject under investigation. Examples of a problem-based standard report (subject: ischaemic heart disease in patients aged 45 years and over), a group report (subject: female patients aged 15–24 years) and a pharmacological-based standard report (subject: allopurinol) 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 involves a new random sample of about 1,000 GPs
- each GP records details of about 100 doctor–patient encounters of all types
- the GP sample is 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 can 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 is recorded by the GPs on structured paper encounter forms (Appendix 1)
- GP participants also complete a questionnaire about themselves and their practice (Appendix 2).

2.1 Sampling methods

The source population includes 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 ensures 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 Department of Health (DoH) updates the sample frame quarterly from the Medicare claims data. They then remove from the sample frame any GPs already randomly sampled in the current triennium, and draw a new sample from those remaining in the sample frame. This ensures 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 are approached by letter, posted to the address provided by DoH.

- Over the following 10 days, the telephone numbers generated from the Medicare data are checked using the electronic white and yellow pages. This is necessary because many of the telephone numbers provided from the Medicare data are incorrect.
- The GPs are 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 indicates that the selected GP has moved elsewhere, but is still in practice. Where a new address and/or telephone number can be obtained, these GPs are followed up at their new address.
- GPs who agree to participate are set an agreed recording date several weeks ahead.
- A research pack is sent to each participant before the planned start date.
- Each GP receives a telephone reminder early in the agreed recording period – this also provides the GP with an opportunity to ask questions about the recording process.
- GPs can use a ‘freecall’ (1800) number to ring the research team with any questions during their recording period.
- Non-returns are followed up by regular telephone calls for 3 months.

- Participating GPs earn 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 receives 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 are also provided. In addition, GPs receive some educational material related to the identification and management of patients who smoke or consume alcohol at hazardous levels. Additional points can be earned if the participant chooses 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 2014–15 was obtained from the Human Ethics Committee of the University of Sydney.

Although the data collected by the GPs are not sufficient to identify an individual patient, informed consent for GP recording of the encounter details is required from each patient. GPs are instructed to ensure that all patients presenting during their recording period are provided with a Patient Information Card (Appendix 3), and to ask the patient if they are happy for their data to be included in the study. If the patient refuses, details of the encounter are not recorded. This is 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, intended changes in hours of direct patient care in 5 years, 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)

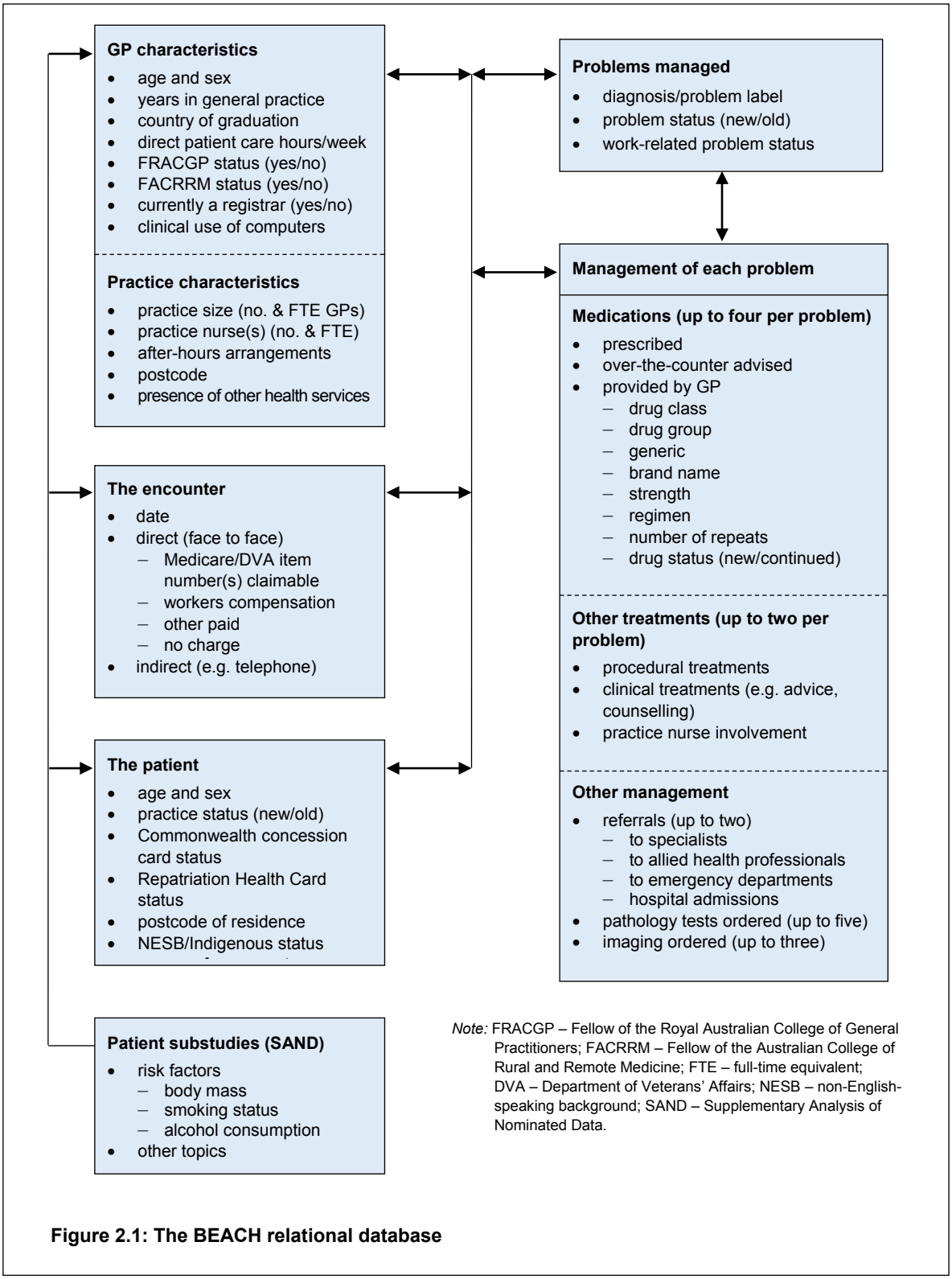
- **Encounter data:** date of consultation, type of consultation (direct/indirect) (tick box options), up to three Medicare Benefits Schedule (MBS)/Department of Veterans' Affairs (DVA) item numbers (where applicable), and other payment source (where applicable) (tick box options).
- **Patient data:** date of birth, sex and postcode of residence. Tick boxes (yes/no options) are 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 are provided to denote the status of each problem as new or continuing for the patient and whether the problem is considered by the GP to be work-related.
- **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 describe one RFE (such as ‘repeat prescriptions’) that is related 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).



Note: FRACGP – Fellow of the Royal Australian College of General Practitioners; FACRRM – Fellow of the Australian College of Rural and Remote Medicine; FTE – full-time equivalent; DVA – Department of Veterans' Affairs; NESB – non-English-speaking background; SAND – Supplementary Analysis of Nominated Data.

Figure 2.1: The BEACH relational database

2.6 Supplementary Analysis of Nominated Data

A section at the bottom of each recording form investigates 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 is divided into 10 blocks, each of 5 weeks, with three substudies per block. The research team aims to include data from about 100 GPs in each block.
- Each GP's pack of 100 forms is made up of 40 forms that ask for the start and finish times of the encounter, and include 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 are divided into two blocks of 30, so each SAND block includes about 3,000 records. Some topics are repeated to increase sample size. Different questions are asked of the patient in each block and these vary throughout the year.
- The order of SAND sections is rotated in the GP recording pack, so that 40 patient risk factor forms may appear first, second or third in the pad. 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 2014 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*[11]
- from April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*[12]
- conducted between August 2006 and March 2014 have been published in each of the general practice activity annual reports[13-20]
- conducted in the 2014–15 BEACH year are provided in Chapter 15 of the companion report, *General practice activity in Australia 2014–15*.[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 2014–15 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 intracluster 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 2005–06 to 2014–15, 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 2014–15, 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 2014–15. In general, results are presented in decreasing 2014–15 order of frequency.

The direction and type of change between 2005–06 and 2014–15 is indicated for each result in the far right column of the tables:

- ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 when compared with the first year of data reported
- ↑/↓ indicates a marginally significant change in 2014–15 when compared with the first year of data reported
- — indicates there was no significant change in 2014–15 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 2005–06 to 2014–15 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 2005–06 by 100, and then multiply by the total number of general practitioner service items claimed through Medicare in 2005–06 (rounded to the nearest 100,000). As shown in Table 2.1, this was 98.2 million. This provides the estimated national number of events in 2005–06
- repeat the process using data from 2014–15.

The difference between the two estimates gives the estimated national change in the frequency of that event between 2005–06 and 2014–15. 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 2014–15, when compared with (usually) 2005–06.

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 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 2005–06 to 2014–15.

Table 2.1: Rounded number of general practice professional services claimed from Medicare Australia each financial year, 2005–06 to 2014–15 (millions)

	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15[(a)]
Rounded number of Medicare GP items of service claimed	101.1	103.4	109.5	113.0	116.6	119.2	123.9	126.8	134.2	137.3

(a) Medicare data for the 2014–15 year included data from the April 2014 to March 2015 quarters because the 2014–15 financial year data were not available at the time of preparation of this report.

Source: Medicare Statistics.[10]

Examples of extrapolation

Example 1: Change in the number of pathology tests/batteries ordered nationally (with 95% confidence intervals)

Orders for chemistry tests increased by 25.8%, from 21.7 tests/batteries (95% CI: 20.5–22.9) per 100 encounters in 2005–06 to 27.3 (95% CI: 26.1–28.6) in 2014–15.

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

- In 2005–06 (21.7/100) x 101.1 million = 21.9 million chemistry tests/batteries ordered nationally
  Lower confidence interval: 20.5/100 x 101.1 million = possibly as few as 20.7 million
  Upper confidence interval: 22.9/100 x 101.1 million = possibly as many as 23.2 million
- In 2014–15, (27.3/100) x 137.3 million = 37.5 million chemistry tests/batteries ordered
  Lower confidence interval: 26.1/100 x 137.3 million = possibly as few as 35.8 million
  Upper confidence interval: 28.6/100 x 137.3 million = possibly as many as 39.3 million.

This suggests there were 15.6 million (37.5 million minus 21.9 million) more GP ordered chemistry tests/batteries in Australia in 2014–15 than in 2005–06. This is our best estimate of the change, but we are 95% confident that the true result is between 15.1 and 16.1 million additional chemistry test/batteries ordered in 2014–15.

This is the result of the compound effect of the increase in the number of tests ordered by GPs at encounters **plus** the increased number of GP visits over the decade across Australia.

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

The management rate of URTI (the common cold) did not change between 2005–06 (6.2 per 100 encounters, 95% CI: 5.8–6.6) and 2014–15 (5.8 per 100, 95% CI: 5.4–6.2).

For 2005–06, our best estimate for the total national encounters involving management of URTI is:

> 6.27 million [(6.2/100) x 101.1 million], but we are 95% confident that the true number lies between 5.86 million [(5.8/100) x 101.1 million] and 6.67 million [(6.6/100) x 101.1 million].

For 2014–15, our best estimate for the total national encounters involving management of URTI is:

> 7.96 million [(5.8/100) x 137.3 million], but we are 95% confident that the true number lies between 7.41 million [(5.4/100) x 137.3 million] and 8.51 million [(6.2/100) x 137.3 million].

Therefore, we estimate that even though the management rate of URTI did not change in an average 100 encounters, the huge increase in the number of attendances nationally in 2014–15 (compared with 2005–06) led to an estimated additional 1.69 million (95% CI: 1.55 million–1.84 million) more GP–patient encounters across the country at which GPs managed URTI, when 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 (or example, number of referrals nationally), rather than the number of encounters nationally where at least one event (or example, 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), a product 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 World Health Organization 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 2004[28] 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-2 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 Family Medicine Research Centre (FMRC) (then Unit) 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 1998–2015* (about 1.7 million encounters). Together, these make up about 2.3 million encounter records, involving about 3.4 million free text descriptions of problems managed and a further 3.4 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/medicine/fmrc/icpc-2-plus/demonstrator>.

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/2123/13765>.

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 list[32] 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 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 A4.8 and A4.9.

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).

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 use 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 are 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 RFEs[37] 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 2014–15 can be found in Chapter 3 of *General practice activity in Australia 2014–15*.[1]

Table 3.1 shows the number of encounter records contained in each year of the BEACH program since April 2005, 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, 2005–06 to 2014–15 (final weighted data)

Variable	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	Total 10 years
General practitioners	1,017	930	953	1,011	988	958	984	978	959	995	9,773
Encounters	101,993	91,805	95,898	96,688	101,349	95,839	99,030	98,564	95,879	98,728	975,773
Reasons for encounter	153,309	138,434	146,696	151,282	157,071	149,005	153,218	152,278	148,880	151,636	1,501,809
Problems managed	149,088	136,333	145,078	149,462	155,373	146,141	152,286	152,517	151,675	153,133	1,491,086
Medications	106,493	93,193	98,439	102,737	108,001	100,817	106,007	101,065	98,394	101,776	1,016,922
Other treatments	44,504	41,011	49,130	49,048	53,243	50,235	53,395	53,163	54,104	50,204	498,037
Referrals & admissions	12,242	11,230	12,017	13,251	13,481	13,526	14,382	14,561	15,012	15,697	135,399
Pathology	39,358	38,963	41,375	44,066	45,594	43,313	46,544	46,398	47,035	46,435	439,081
Imaging	9,003	8,229	9,143	9,469	9,877	9,370	9,978	10,163	10,460	11,314	97,006

4 The participating GPs

4.1 Characteristics of the participating GPs

In BEACH, each GP participant completes a profile questionnaire about themselves and the major practice at which they work (see Appendix 2). Over the 10 years, the questions have occasionally been altered 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 2014–15 can be found in Chapter 4 in *General practice activity in Australia 2014–15*.[1]

Over the period 2005–06 to 2014–15, 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.

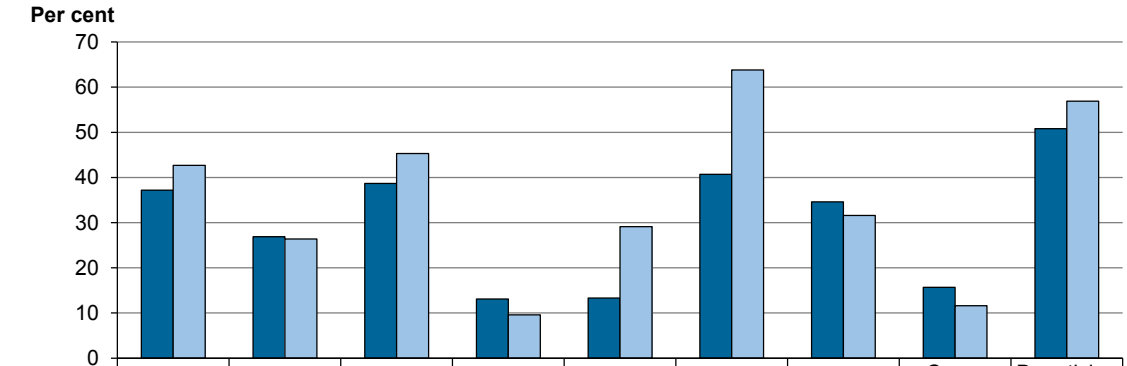
- The feminisation of the general practice workforce is reflected in the growing proportion of GP participants who are female. The proportion of female participants increased from 37.2% in 2005–06 to 42.7% in 2014–15. This change reflects change in the sex distribution of all recognised GPs claiming more than 375 general practice Medicare items of service in the previous quarter (34.8% in 2005–06[39] and 42.0% in 2014–15), 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 (then) DoHA when compared with the national sample frame (as may occasionally happen in the random sampling process).[16]
- From 2005–06 to 2014–15, there was a significant change in the age distribution of participants, with a decrease in the proportion aged 35–44 years (from 22.2% to 19.0%), and an increase in the proportion aged 55 years and over (from 38.7% 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 35–44 years decreased from 24.1%[39] to 22.7%, and the proportion aged 55 years and over increased from 32.7%[39] to 40.4%. In BEACH, the mean age of GP participants in 2005–06 was 51.5 years (median 51 years), while in 2014–15, it was 52.4 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 47.1% in 2005–06 to 58.0% in 2014–15), and a significant decrease in the proportion working 41–60 hours (39.0% in 2005–06 to 28.4% in 2014–15), 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 3.4% to 1.7% over the decade). When the last two results are combined, there was a decrease from 42.4% of participants working more than 40 hours per week in direct patient care in 2005–06 to 30.1% working these hours in 2014–15. There was a significant decrease in the mean number of hours spent in direct patient care, from 39.1 hours in 2005–06 to 36.6 hours in 2014–15. This has implications for workforce planning.
- The proportion of GPs who had graduated from their primary medical degree in Australia significantly decreased, from 72.0% in 2005–06 to 67.0% in 2014–15.

- The proportion of GP participants holding Fellowship of the RACGP (FRACGP) significantly increased, from 40.7% in 2005–06 to 63.8% in 2014–15. 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 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 2.6% in 2005–06 to 3.8% in 2014–15.

4.2 Characteristics of participants' major practice

From 2005–06 to 2014–15, 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 solo practice, and the proportion in smaller practices of 2–4 GPs decreased significantly. Whereas in 2005–06 about half (48.3%) of participating GPs worked either solo, or in these small practices, the proportion decreased to 30.8% by 2014–15. The proportion working in practices of 10 or more individual GPs more than doubled (from 13.3% in 2005–06 to 29.1% in 2014–15). 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 (21.9% in 2005–06 and 21.4% in 2014–15, 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 31.6% (Table 4.2).
  - The proportion providing after-hours services in cooperation with other practices (as their sole arrangement) decreased over the time period, from 11.2% in 2005–06 to 8.6% in 2014–15 (results not tabled), and decreased from 15.7% to 11.6% 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 38.3% in 2005–06 to 48.2% in 2014–15 (results not tabled). When deputising services were used in combination with other arrangements the proportion increased from 50.8% to 56.9%.



	Female	< 45 years	55+ years	Solo GP	10+ GPs	FRACGP	Own A.H.*	Co-op A.H.*	Deputising A.H.*
2005–06	37.2	26.9	38.7	13.1	13.3	40.7	34.6	15.7	50.8
2014–15	42.7	26.4	45.3	9.6	29.1	63.8	31.6	11.6	56.9

* Multiple responses were allowed.

Note: FRACGP – Fellows of the Royal Australian College of General Practitioners; Own A.H. – the practice provides its own after-hours service for their patients; Co-op A.H. – the practice provides after-hours services in a cooperative arrangement with other practices; Deputising A.H. – the practice uses deputising services for the provision of their after-hours care.

Figure 4.1: Selected characteristics of participating GPs and their practices, 2005–06 and 2014–15

Table 4.1: Characteristics of participating GPs, 2005–06 to 2014–15

	Per cent of participating GPs[a]									
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
GP characteristic	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)	(*n* = 995)
Sex (χ^2_9 = 59.8, p < 0.0001) (missing *n*)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Male	62.8	65.9	63.2	67.5	56.4	61.7	59.2	56.9	57.0	57.3
Female	37.2	34.1	36.8	32.5	43.6	38.3	40.8	43.1	43.0	42.7
Age (χ^2_{27} = 156.3, p < 0.0001) (missing *n*)	(18)	(11)	(8)	(4)	(6)	(6)	(5)	(8)	(5)	(7)
< 35 years	4.7	6.8	7.8	2.6	7.1	6.5	6.6	8.5	6.2	7.4
35–44 years	22.2	22.6	22.2	14.0	21.4	16.7	19.4	17.0	17.9	19.0
45–54 years	34.3	35.6	36.4	37.5	36.7	34.7	32.9	33.2	28.4	28.2
55+ years	38.7	35.0	33.5	45.9	34.8	42.1	41.1	41.3	47.5	45.3
Mean GP age (years)	51.5 (50.8–52.1)	50.7 (50.0–51.4)	50.0 (49.4–50.7)	53.7 (53.1–54.3)	50.5 (49.8–51.1)	52.4 (51.7–53.0)	51.9 (51.2–52.6)	51.5 (50.8–52.2)	53.0 (52.3–53.7)	52.4 (51.7–53.1)
Years in general practice (χ^2_{36} = 232.8, p < 0.0001) (missing *n*)	(13)	(13)	(7)	(6)	(7)	(8)	(5)	(11)	(10)	(13)
< 2 years	0.6	0.6	0.6	0.1	1.1	1.0	1.4	2.6	0.9	0.9
2–5 years	4.9	7.9	9.9	3.4	8.9	8.5	10.4	10.9	10.5	11.8
6–10 years	12.1	11.1	12.9	5.7	12.3	9.9	11.1	9.9	9.1	11.1
11–19 years	24.0	23.5	20.6	19.3	23.3	16.3	18.6	17.2	15.8	16.9
20+ years	58.5	57.0	55.9	71.5	54.3	64.3	58.4	59.5	63.7	59.3
Currently in a GP training program (missing *n*)	(13)	(13)	(4)	(8)	(6)	(8)	(9)	(8)	(14)	(11)
(χ^2_9 = 40.4, p < 0.0001)	2.6	2.9	2.9	1.5	3.6	3.2	3.9	6.1	4.7	3.8
Fellow of RACGP (missing *n*)	(14)	(6)	(5)	(7)	(4)	(4)	(3)	(6)	(7)	(6)
(χ^2_9 = 200.1, p < 0.0001)	40.7	46.3	50.2	39.7	53.5	52.1	56.8	55.7	56.0	63.8

(continued)

Table 4.1 (continued): Characteristics of participating GPs, 2005–06 to 2014–15

	Per cent of participating GPs[a]									
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
GP characteristic	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)	(*n* = 995)
Direct patient care hours per week (χ^2_{36} = 121.9, p < 0.0001) (missing *n*)	(34)	(28)	(25)	(16)	(15)	(16)	(13)	(12)	(14)	(23)
≤ 10	0.8	1.0	0.3	0.3	0.3	0.6	1.2	1.5	1.1	1.2
11–20	9.8	11.3	8.7	7.3	10.3	8.7	12.2	10.1	10.2	10.7
21–40	47.1	47.9	52.4	49.5	56.2	54.0	53.0	55.4	58.2	58.0
41–60	39.0	36.9	36.6	40.2	30.8	34.2	32.1	31.2	29.0	28.4
61+	3.4	2.9	1.9	2.7	2.4	2.4	1.4	1.9	1.6	1.7
Mean direct patient care hours per week	39.1 (38.2–39.9)	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)
Place of graduation[b] (χ^2_{54} = 88.6, p = 0.0021) (missing *n*)	(5)	(1)	(3)	(2)	(1)	(3)	(1)	(3)	(4)	(5)
Australia	72.0	73.6	73.5	74.3	70.6	69.2	67.2	66.2	71.0	67.0
Overseas	28.0	26.4	26.5	25.7	29.4	30.8	32.8	33.8	29.0	33.0
Asia	10.9	10.1	9.8	8.3	9.8	12.2	12.5	11.7	9.7	13.3
United Kingdom/Ireland	8.1	7.3	6.8	10.3	8.8	7.4	8.1	9.2	8.5	8.4
Africa and Middle East	4.5	5.1	4.3	3.8	5.2	5.8	5.6	6.4	5.0	6.0
Europe	2.1	1.7	2.6	1.9	2.0	2.9	3.4	3.0	2.3	3.1
New Zealand	1.9	1.4	1.4	1.1	1.9	1.4	1.6	2.2	1.9	1.3
Other	0.6	0.8	1.6	0.3	1.6	1.2	1.5	1.4	1.6	0.9

(continued)

Table 4.1 (continued): Characteristics of participating GPs, 2005–06 to 2014–15

	Per cent of participating GPs[a]									
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
GP characteristic	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)	(*n* = 995)
Consultations in languages other than English[c] (χ^2_{18} = 32.0, *p* = 0.02) (missing *n*)	(9)	(0)	(4)	(3)	(3)	(5)	(3)	. .	. .	. .
< 25%	20.9	18.1	20.4	17.6	18.5	21.9	21.7	NAv	NAv	NAv
25–50%	3.6	1.6	3.1	3.5	3.6	2.9	2.9	NAv	NAv	NAv
> 50%	3.5	2.9	3.6	3.0	1.8	1.9	2.8	NAv	NAv	NAv

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

(b) For this variable *p* = 0.002 – significant change when comparing Australia with all overseas countries combined; *p* = 0.0059 – significant change in the distribution of overseas countries in which GPs had graduated from their primary medical degree.

(c) Data for all three groupings only available to 2011–12.

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

Table 4.2: Characteristics of practices in which participating GPs worked, 2005–06 to 2014–15

	Per cent of participating GPs[a]									
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Practice characteristic	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)	(*n* = 995)
Practice location by ASGC (χ^2_{36} = 32.9, p = 0.6173) (missing *n*)	(0)	(0)	(1)	(0)	(0)	(0)	(5)	(0)	(6)	(1)
Major cities	72.1	66.3	72.2	73.4	69.2	69.2	71.5	68.8	68.9	71.2
Inner regional	18.8	22.7	17.4	18.0	20.2	20.6	18.9	19.2	21.5	19.2
Outer regional	7.8	9.4	8.6	7.2	9.1	8.8	8.1	10.5	8.4	8.3
Remote	0.8	1.3	1.3	0.9	1.1	1.2	0.9	1.0	0.9	1.1
Very remote	0.6	0.3	0.5	0.5	0.3	0.3	0.6	0.4	0.2	0.2
Size of practice – number of GPs (χ^2_{21} = 193.6, $p < 0.0001$) (missing *n*)	(9)	(6)	. .	. .	(11)	(12)	(16)	(28)	(27)	(25)
Solo	13.1	8.2	NAv	NAv	9.2	10.8	10.7	9.8	8.7	9.6
2–4	35.2	35.7	NAv	NAv	30.0	28.4	26.6	23.3	23.1	21.2
5–9	38.4	40.3	NAv	NAv	41.4	38.6	42.3	38.6	42.6	40.1
10+	13.3	15.8	NAv	NAv	19.5	22.2	20.5	28.3	25.6	29.1
Size of practice – full-time equivalents (χ^2_{21} = 121.7, $p < 0.0001$) (missing *n*)	. .	. .	(23)	(8)	(51)	(40)	(111)	(136)	(128)	(150)
< 2	NAv	NAv	17.6	19.6	15.2	17.2	13.8	11.9	10.4	11.1
2 – < 5	NAv	NAv	41.2	42.9	48.9	43.6	43.6	39.0	41.5	37.0
5 – < 10	NAv	NAv	31.9	29.4	28.8	29.6	34.7	38.2	37.4	40.8
10+	NAv	NAv	9.3	8.1	7.2	9.6	7.9	10.9	10.7	11.0

(continued)

Table 4.2 (continued): Characteristics of practices in which participating GPs worked, 2005–06 to 2014–15

Practice characteristic	Per cent of participating GPs[a]									
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)	(*n* = 995)
After-hours arrangements[b] (missing *n*)	(14)	(3)	(6)	(6)	(2)	(4)	(7)	(5)	(8)	(5)
Practice does its own (χ^2_9 = 17.9, p < 0.0360)	34.6	34.6	33.2	28.9	29.1	29.8	30.6	30.7	30.7	31.6
Cooperative with other practices (χ^2_9 = 20.4443, p = 0.0154)	15.7	15.5	14.6	15.1	17.8	14.3	12.5	14.9	14.2	11.6
Deputising service (χ^2_9 = 35.8010, p < 0.0001)	50.8	48.1	49.5	57.9	53.1	52.1	53.0	53.3	56.4	56.9
Computer use by individual GPs[c] (χ^2_9 = 90.368, p < 0.0001) (missing *n*)	(60)	(71)	(63)	(3)	(1)	(1)	(0)	(4)	(5)	(3)
Computer used (any purpose)	91.5	93.7	94.2	94.6	97.8	95.6	95.9	97.1	98.0	97.5
Medical records (missing *n*)	. .	. .	. .	(3)	(1)	(1)	(0)	(4)	(5)	(3)
Complete (paperless)[d]	NAv	NAv	NAv	56.4	64.2	64.7	65.0	70.4	69.9	70.7
Partial/hybrid records	NAv	NAv	NAv	36.1	30.2	28.8	29.3	25.8	27.4	25.5
Paper records only	NAv	NAv	NAv	5.5	2.0	6.6	5.5	3.8	2.6	3.8
Prescribing										
ePrescribing (online)	NAv	NAv	NAv	NAv	NAv	NAv	NAv	28.9	31.7	32.0
Print scripts	NAv	NAv	NAv	NAv	NAv	NAv	NAv	71.8	73.2	72.6
Paper only (handwritten)	NAv	NAv	NAv	NAv	NAv	NAv	NAv	4.3	3.7	2.0
Internet (χ^2_7 = 6.7334, p = 0.346)	NAv	NAv	NAv	74.5	77.3	84.7	84.6	77.0	77.0	74.5
Email (χ^2_7 = 10.6766, p = 0.0988)	NAv	NAv	NAv	61.1	61.1	65.0	66.6	60.8	61.0	56.1

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

(b) Multiple responses were allowed.

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

(d) 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 encounters in general practice from each of the most recent 10 years of the BEACH study from 2005–06 to 2014–15. The direction and type of change from 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 2005–06 and 2014–15. 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 2014–15 can be found in Chapter 5 of *General practice activity in Australia 2014–15*.[1]

5.1 Content of the encounters

Table 5.1 provides an overview of the changes that occurred between 2005–06 and 2014–15. The number of patient reasons for encounter (RFEs) recorded by the GP fluctuated over the decade, starting from 150.3 RFEs per 100 encounters in 2005–06, rising to a peak of 156.5 in 2008–09 and then falling to 153.6 per 100 encounters in 2014–15. Changes in types of RFEs are reported in Chapter 6.

The number of problems managed increased from 146.2 per 100 encounters in 2005–06 to 155.1 per 100 encounters in 2014–15. This represents an additional 65.1 million problems managed in general practice in 2014–15 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 is 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 rate of medications recorded per 100 encounters over the decade. Specific changes in the types of medications recorded are detailed in Chapter 9.

Between 2005–06 and 2014–15, there was a significant increase in the rate of clinical treatments (such as advice and counselling) provided, from 29.3 per 100 encounters in 2005–06 to 33.9 per 100 in 2014–15. This represents an additional 16.9 million clinical treatments provided nationally in general practice in 2014–15 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 2005–06 and 2014–15, from 14.4 per 100 encounters to 17.0 per 100 encounters. This increase represents an additional 8.8 million procedures performed nationally in 2014–15 compared with a decade earlier. More detail is provided in Chapter 10.

Referrals increased over the decade 2005–06 to 2014–15, from 12.0 to 15.9 per 100 encounters. This represented 9.7 million more referrals nationally in 2014–15 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 2005–06 and 2014–15. Orders for other investigations decreased significantly 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. Before 2005–06, only one item number was recorded on the BEACH encounter form. In 2005–06, this increased to three items, to capture practice nurse item numbers and other additional information about the Medicare items used in general practice.

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 increased significantly from 1.0% of MBS/DVA-claimable encounters in 2005–06 to 1.7% in 2014–15. Previous research suggests that part of this increase is related to increasing practice nurse involvement in GP encounters.[40]
- Standard consultations decreased significantly from 83.7% of MBS/DVA-claimable encounters in 2005–06 to 78.8% in 2014–15.
- Long surgery consultations accounted for 9.8% of MBS/DVA-claimable encounters in 2005–06, and remained steady until 2007–08. The proportion dropped significantly in 2008–09, then slowly rose again and in 2014–15 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.[41] Unfortunately, this change no longer allows a discrete measure 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 2005–06 and 2014–15.

5.3 Consultation length

In a subsample of consultations, start and finish times were recorded. There was a significant increase in the mean length of consultation from 13.8 minutes to 14.4 minutes between 2005–06 and 2014–15 for A1 MBS/DVA-claimable encounters. The mean length of consultation for all MBS/DVA-claimable encounters also increased significantly from 13.9 minutes to 14.7 minutes between 2005–06 and 2014–15. The median consultation length for both of these groups of items increased from 12 to 13 minutes in the last 2 years (Table 5.3).

Table 5.1: Summary of morbidity and management, 2005–06 to 2014–15

Variable	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓[a]
Reasons for encounter	150.3 (148.4–152.2)	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)	—
Problems managed	146.2 (144.2–148.2)	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)	↑
New problems	56.9 (55.5–58.2)	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)	—
Chronic problems	52.1 (50.2–54.0)	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)	—
Work-related	2.8 (2.6–3.1)	2.9 (2.6–3.1)	2.8 (2.6–3.1)	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	. .
Medications	104.4 (101.8–107.0)	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)	—
Prescribed	85.8 (83.3–88.4)	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)	—
GP-supplied	8.8 (8.2–9.5)	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)	—
Advised OTC	9.8 (9.0–10.5)	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)	—
Other treatments	43.6 (41.5–45.8)	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)	↑
Clinical	29.3 (27.4–31.1)	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)	↑
Procedural	14.4 (13.7–15.1)	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)	↑

(continued)

Table 5.1 (continued): Summary of morbidity and management, 2005–06 to 2014–15

Variable	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Referrals	12.0 (11.5–12.5)	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)	↑
Medical specialist	8.2 (7.8–8.5)	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)	↑
Allied health services	2.9 (2.7–3.1)	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)	↑
Hospital	0.4 (0.3–0.4)	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)	—
Emergency department	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	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)	↑
Other referrals	0.4 (0.3–0.4)	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)	↑
Pathology	38.6 (36.9–40.3)	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)	↑
Imaging	8.8 (8.4–9.2)	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)	↑
Other investigations	1.0 (0.9–1.1)	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)	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

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, 2005–06 to 2014–15

MBS/DVA consultation category	Percentage distribution of MBS/DVA-claimable encounters (95% CI)										
	2005–06 (*n* = 89,011)	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)	↑↓[(a)]
Short surgery consultations	1.0 (0.8–1.1)	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)	↑
Standard surgery consultations	83.7 (82.7–84.7)	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)	↓
Long surgery consultations	9.8 (9.1–10.5)	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)	§
Prolonged surgery consultations	0.7 (0.5–0.8)	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)	—
Home and institution visits	1.4 (1.1–1.7)	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)	—
Residential aged care facility	1.3 (0.9–1.6)	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)	—
Chronic disease management	0.3 (0.2–0.4)	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)	↑
GP mental health care	0.0[Ŧ] (0.0–0.0)	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)	↑
Health assessment	0.2 (0.1–0.2)	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)	↑
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 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—
Other items	1.6 (1.3–1.8)	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)	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

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

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, Methods). CI – confidence interval.

Table 5.3: Consultation length (minutes), 2005–06 to 2014–15

Variable	Consultation length (minutes)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
A1 MBS/DVA items (A, B, C, D)[b]	**(*n* = 33,316)**	**(*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)**	
Mean	13.8 (13.5–14.0)	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)	↑
Median	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	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	1–110	1–155	1–110	1–120	1–148	1–89	1–150	1–130	1–110	1–130	. .
All MBS/DVA-claimable encounters (GP items)	**(*n* = 34,574)**	**(*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)**	
Mean	13.9 (13.6–14.1)	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)	↑
Median	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	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	1–110	1–155	1–110	1–120	1–148	1–95	1–150	1–165	1–150	1–180	. .

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

(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 2005–06 to 2014–15 is shown for each result in the column on the far right of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

Detailed analyses of the patients at encounters in 2014–15 can be found in Chapter 6 of *General practice activity in Australia 2014–15*.[1]

Significant changes in rates per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2005–06 and 2014–15. There were 36.2 million more encounters claimed through Medicare in 2014–15 than in 2005–06 (137.3 million versus 101.1 million). It should be noted that because of this increase, a lower rate of events 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.

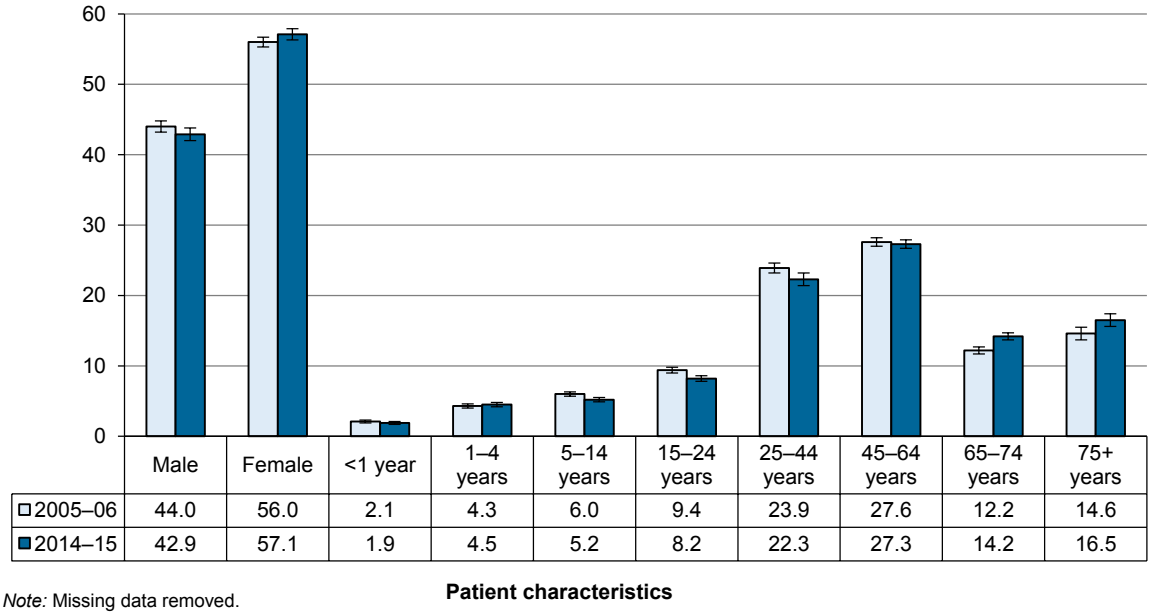
6.1 Age and sex of patients at encounter

Figure 6.1 and Table 6.1 show the age and sex distribution of patients at BEACH encounters from 2005–06 to 2014–15. Over this period, there was no significant change in the proportion of encounters with male and female patients. The proportion of encounters with patients aged less than 45 years decreased from 45.7% to 42.0%, while the proportion with patients aged 65 years and over increased from 26.7% to 30.7%. When extrapolated, considering the increased number of encounters nationally, the annual number of encounters with patients aged less than 45 years increased by about 11.5 million over the decade, while the annual number of encounters with patients aged 65 years and over increased by about 15.2 million nationally.

Readers interested the changes in the care of older people (aged 65 years or more) in general practice should see the feature (Chapter 14) in the companion report *General practice activity in Australia 2014–15*.[1]

6.2 Other patient characteristics

Over the decade, there was a significant decrease in the proportion of encounters that were with patients new to the practice (from 9.1% in 2005–06 to 6.3% in 2014–15). Between 2005–06 and 2014–15, 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 decreased by one-third (3.4% to 2.1%). There was no significant change in the proportion of encounters that were with patients from a non-English-speaking background. There was a significant increase in the proportion of patients identifying themselves as Indigenous, from 1.0% in 2005–06 to 1.7% in 2014–15 (Table 6.1).



Note: Missing data removed.

Figure 6.1: Age and sex distribution of patients at encounters, 2005–06 and 2014–15 (95% confidence intervals)

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 symptoms 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 between 2005–06 and 2014–15, there was a marginal decrease in the proportion of encounters involving a single RFE, from 60.9% to 58.5% in 2014–15. The proportion of encounters with two RFEs significantly increased from 27.8% in 2005–06 to 29.4% of all encounters in 2014–15. Extrapolation of this increase suggests there were about 12.3 million more encounters nationally where two RFEs were reported in 2014–15 than in 2005–06. The proportion with three RFEs did not significantly change over the decade.

The overall rate of RFEs did not significantly change, with 150.3 reported per 100 encounters in 2005–06 and 153.6 reported per 100 encounters in 2014–15 (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 8.3 to 7.0 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 14.4 to 16.1 per 100 encounters across the decade.
- Presentations for test results increased by nearly 50%, from 6.5 to 9.5 per 100 encounters. When extrapolated, we estimate 6.5 million more encounters nationally with an RFE of this type in 2014–15 than a decade earlier. This increase reflects that seen in orders by GPs for tests and investigations (see Chapter 12).
- The rate of requests for an administrative procedure (such as a sickness certificate) nearly doubled from 1.7 to 3.3 per 100 encounters. This change equates to an estimated national increase of approximately 2.8 million more requests for an administrative procedure nationally in 2014–15 than in 2005–06.

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 2005–06 and 2014–15 the rate at which patients described RFEs of a general and unspecified nature increased by nearly 25%. When extrapolated to national estimates, this equates to about 24.9 million more general and unspecified RFEs in 2014–15 than in 2005–06.
- 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 2014–15 than in 2005–06. 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*.[42]

- The rate at which patients presented RFEs relating to the blood and blood-forming organs increased marginally by 25%. This is probably linked to increased INR testing (as shown in Chapter 10).

Table 6.4 also shows that between 2005–06 and 2014–15, there were significant decreases in:

- the rate of RFEs relating to respiratory problems, which decreased by about 10%
- the rate of RFEs relating to the circulatory system, which decreased by nearly 20%. This may be linked to the decrease in the management rate of hypertension (as discussed in Chapter 7)
- the rate of RFEs relating to ear problems, which decreased by nearly 15%
- the rate of eye problem RFEs, which decreased by one-quarter over the decade
- the rate of RFEs relating to neurological problems (a marginal decrease).

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

Table 6.5 shows that between 2005–06 and 2014–15 there were significant increases in the proportion of encounters:

- where patients described at least one RFE of a general and unspecified nature (a 20% increase). When extrapolated to national estimates, this equates to about 20.5 million more encounters with at least one general and unspecified RFE in 2014–15 than in 2005–06
- with at least one RFE of a psychological nature (an increase of almost 20%). This equates to approximately 4.4 million more encounters with at least one RFE of a psychological nature nationally in 2014–15 than in 2005–06
- where patients presented at least one RFE relating to the blood and blood-forming organs increased marginally by about one-third.

Table 6.5 also shows that between 2005–06 and 2014–15, there were significant decreases in the proportion of encounters with at least one:

- RFE relating to respiratory problems (about 15%)
- circulatory-related RFE (about 20%)
- ear-related RFE (about 10%)
- neurological RFE (a marginal decrease).

Most frequent patient reasons for encounter

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

- requests for test results (by nearly 50%)
- patient requests for administrative procedures (such as sickness certificates) (which nearly doubled).

Interestingly, the rate of requests for blood tests increased significantly between 2005–06 and 2012–13, but then significantly decreased, reverting to a rate similar in 2014–15 to that of 2005–06.

The rate of presentations for immunisation/vaccination was significantly lower in 2014–15 than in any other year in the decade. This parallels the decrease in the management rate of immunisations/vaccinations (Chapter 7) and decreases in GP-supplied vaccines (Chapter 9), and is likely to be associated with the delay in influenza vaccine supplies in 2015. There was also a significant spike in 2009–10 coinciding with the H1N1 influenza pandemic.

In terms of symptoms and diagnoses, from 2005–06 to 2014–15 there were significant increases in patient presentations of depression (by 20%). This result, combined with the marginal increase in anxiety presentations (by 25%), explains some of the increase in the rate of psychological RFEs reported above, and may have resulted from the introduction of both the Better Outcomes and Better Access general practice mental health care initiatives during the decade.[43]

From 2005–06 to 2014–15, there were marginal increases in patient presentations of:

- skin symptoms or complaints (by about 15%)
- weakness/tiredness (by about 15%)
- shoulder symptom/complaint (by nearly 20%)
- diabetes (by 30%), equating to an extrapolated estimated 770,000 more diabetes-related RFEs in 2014–15 than a decade earlier.

From 2005–06 to 2014–15, there were significant decreases in the RFE rates for ear pain/earache (25%) and chest pain (not otherwise specified) (nearly 20%), and a marginally significant decrease in presentations for vomiting (about 20%).

Table 6.1: Characteristics of patients at encounters, 2005–06 to 2014–15

Patient characteristics	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Sex (missing *n*)[b]	(788)	(765)	(876)	(867)	(931)	(888)	(842)	(823)	(927)	(880)	
Male	44.0 (43.2–44.7)	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)	—
Female	56.0 (55.3–56.8)	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)	—
Age group (missing *n*)[b]	(769)	(779)	(784)	(704)	(781)	(771)	(793)	(825)	(814)	(855)	
< 1 year	2.1 (1.9–2.2)	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)	—
1–4 years	4.3 (4.0–4.5)	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)	—
5–14 years	6.0 (5.7–6.3)	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)	↓
15–24 years	9.4 (9.0–9.8)	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)	↓
25–44 years	23.9 (23.2–24.7)	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)	↓
45–64 years	27.6 (27.0–28.2)	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)	—
65–74 years	12.2 (11.7–12.6)	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)	↑
75+ years	14.6 (13.7–15.4)	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)	↑

(continued)

Table 6.1 (continued): Characteristics of patients at encounters, 2005–06 to 2014–15

Patient characteristics	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑/↓[a]
Other characteristics[b]											
New patient to practice	9.1 (8.3–9.9)	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)	↓
Commonwealth concession card	45.4 (43.8–47.0)	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)	—
Repatriation Health Card	3.4 (3.1–3.6)	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)	↓
Non-English-speaking background	10.8 (9.0–12.5)	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)	—
Aboriginal person and/or Torres Strait Islander	1.0 (0.7–1.2)	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)	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

(b) Missing data removed.

Note: CI – confidence interval.

Table 6.2: Number of patient reasons for encounter, 2005–06 to 2014–15

Number of reasons for encounter	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑/↓[a]
One RFE	60.9 (59.7–62.2)	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)	↓
Two RFEs	27.8 (27.1–28.5)	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)	↑
Three RFEs	11.2 (10.5–11.9)	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)	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change, ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; and — indicates no significant difference between 2005–06 and 2014–15.

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

Table 6.3: Patient reasons for encounter by ICPC-2 component, 2005–06 to 2014–15

ICPC-2 component	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓ (a)
Symptoms and complaints	67.0 (65.2–68.8)	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)	—
Diagnosis, diseases	29.5 (28.0–30.9)	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)	—
Infections	8.3 (7.6–8.9)	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)	↓
Injuries	4.4 (4.2–4.7)	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)	—
Neoplasms	1.0 (0.9–1.1)	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)	—
Congenital anomalies	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (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)	—
Other diagnoses, diseases	15.5 (14.5–16.5)	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)	—
Diagnostic and preventive procedures	24.3 (23.4–25.3)	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)	—
Medications, treatments and therapeutics	14.4 (13.7–15.1)	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)	↑
Results	6.5 (6.1–6.9)	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)	↑
Referrals and other RFEs	6.9 (6.5–7.4)	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)	—
Administrative	1.7 (1.5–1.8)	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)	↑
Total RFEs	**150.3 (148.4–152.2)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

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

Table 6.4: Patient reasons for encounter by ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
General & unspecified	36.3 (35.2–37.5)	37.7 (36.7–38.8)	40.1 (39.0–41.2)	40.7 (39.6–41.7)	42.7 (41.5–43.9)	41.0 (39.8–42.3)	42.2 (41.0–43.5)	44.4 (43.2–45.7)	45.1 (43.8–46.5)	44.9 (43.7–46.0)	↑
Respiratory	21.9 (21.1–22.7)	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)	↓
Musculoskeletal	16.4 (15.8–16.9)	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)	—
Skin	15.0 (14.5–15.6)	15.7 (15.1–16.3)	15.4 (14.8–16.1)	15.1 (14.6–15.6)	14.8 (14.3–15.3)	15.3 (14.8–15.8)	15.1 (14.5–15.6)	15.0 (14.4–15.6)	15.9 (15.2–16.5)	15.2 (14.7–15.8)	—
Digestive	9.9 (9.5–10.3)	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)	—
Psychological	7.8 (7.3–8.3)	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)	↑
Circulatory	10.8 (10.2–11.3)	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)	↓
Endocrine & metabolic	6.2 (5.8–6.5)	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)	—
Female genital system	5.1 (4.8–5.5)	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)	—
Neurological	4.9 (4.7–5.2)	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)	↓
Pregnancy & family planning	3.4 (3.1–3.6)	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)	—
Ear	3.9 (3.7–4.1)	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)	↓
Urology	2.6 (2.5–2.8)	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)	—

(continued)

Table 6.4 (continued): Patient reasons for encounter by ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Eye	2.8 (2.6–2.9)	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)	↓
Blood & blood-forming organs	1.2 (1.0–1.3)	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)	↑
Male genital system	1.3 (1.2–1.4)	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)	—
Social	0.9 (0.8–1.0)	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)	—
Total RFEs	**150.3 (148.4–152.2)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

Note: CI – confidence interval; ICPC-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 ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Proportion (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓[(a)]
General & unspecified	32.7 (31.7–33.6)	33.9 (33.0–34.8)	35.7 (34.8–36.6)	35.8 (35.0–36.6)	37.5 (36.6–38.4)	36.0 (35.0–37.0)	37.0 (36.1–38.0)	38.8 (37.8–39.8)	39.2 (38.2–40.2)	39.0 (38.1–39.9)	↑
Respiratory	18.6 (18.0–19.2)	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)	↓
Musculoskeletal	15.1 (14.6–15.6)	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)	—
Skin	14.1 (13.6–14.6)	14.7 (14.1–15.2)	14.3 (13.8–14.9)	14.2 (13.7–14.6)	14.0 (13.5–14.5)	14.3 (13.9–14.8)	14.1 (13.6–14.6)	14.2 (13.6–14.7)	14.9 (14.3–15.5)	14.4 (13.9–14.9)	—
Digestive	8.7 (8.4–9.0)	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)	—
Psychological	7.1 (6.7–7.5)	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)	↑
Circulatory	10.2 (9.7–10.8)	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)	↓
Endocrine & metabolic	5.9 (5.6–6.2)	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)	—
Neurological	4.7 (4.5–4.9)	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)	↓
Female genital system	4.6 (4.3–4.9)	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)	—
Pregnancy & family planning	3.3 (3.0–3.5)	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)	—
Ear	3.7 (3.6–3.9)	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)	↓
Urology	2.4 (2.2–2.5)	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)	—

(continued)

Table 6.5 (continued): Proportion of encounters with at least one patient reason for encounter by ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Proportion (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Eye	2.6 (2.4–2.7)	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)	↓
Blood & blood-forming organs	1.1 (1.0–1.3)	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)	↑
Male genital system	1.3 (1.1–1.4)	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)	—
Social	0.9 (0.8–1.0)	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)	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

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

Table 6.6: Most frequent patient reasons for encounter, 2005–06 to 2014–15

Patient reason for encounter	Rate per 100 encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[(a)]
Prescription all*	12.0 (11.3–12.7)	11.8 (11.2–12.4)	12.5 (11.9–13.2)	12.6 (12.0–13.2)	11.6 (11.0–12.2)	12.0 (11.4–12.7)	12.6 (11.9–13.3)	12.7 (12.0–13.4)	13.2 (12.5–13.9)	13.3 (12.6–14.0)	—
Check-up - all*	14.1 (13.4–14.8)	14.6 (13.9–15.2)	14.5 (13.8–15.1)	15.2 (14.5–15.8)	13.9 (13.3–14.5)	13.7 (13.0–14.3)	13.7 (13.0–14.3)	13.1 (12.4–13.7)	14.2 (13.5–14.8)	13.2 (12.6–13.8)	—
Test results*	6.5 (6.1–6.9)	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)	↑
Cough	6.4 (6.0–6.8)	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)	—
Back complaint*	3.4 (3.2–3.7)	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)	—
Immunisation/ vaccination – all*	4.8 (4.4–5.2)	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)	↓
Administrative procedure – all*	1.7 (1.5–1.8)	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)	↑
Throat complaint	3.3 (3.0–3.5)	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)	—
Rash*	2.6 (2.5–2.8)	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)	—
Blood test – all*	2.3 (2.1–2.5)	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)	§
Depression*	1.9 (1.7–2.0)	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)	↑
Abdominal pain*	2.2 (2.1–2.4)	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)	—
Upper respiratory tract infection	2.4 (2.0–2.7)	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)	—
Fever	2.2 (1.9–2.5)	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)	—

(continued)

Table 6.6 (continued): Most frequent patient reasons for encounter, 2005–06 to 2014–15

Patient reason for encounter	Rate per 100 encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[a]
Headache*	2.0 (1.9–2.1)	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)	↓
Skin symptom/complaint, other	1.4 (1.3–1.5)	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)	↑
Knee symptom/complaint	1.4 (1.3–1.5)	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)	—
Observation/health education/advice/diet – all*	1.4 (1.3–1.6)	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)	—
Hypertension/high blood pressure*	1.9 (1.6–2.1)	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)	—
Anxiety*	1.2 (1.0–1.3)	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)	↑
Weakness/tiredness	1.3 (1.2–1.4)	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)	↑
Other referrals NEC	0.8 (0.7–0.9)	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)	↑
Sneezing/nasal congestion	1.3 (1.1–1.6)	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)	—
Shoulder symptom/complaint	1.1 (1.0–1.2)	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)	↑
Diabetes – all*	1.0 (0.9–1.1)	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)	↑
Diarrhoea	1.3 (1.2–1.4)	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)	—
Ear pain/earache	1.6 (1.5–1.7)	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)	↓
Sleep disturbance	1.1 (1.0–1.2)	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)	—

(continued)

Table 6.6 (continued): Most frequent patient reasons for encounter, 2005–06 to 2014–15

Patient reasons for encounter	Rate per 100 encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[a]
Vertigo/dizziness	1.1 (1.1–1.2)	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)	—
Foot/toe complaint	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	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)	—
Swelling (skin)*	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 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (1.0–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	—
Leg/thigh complaint	1.0 (0.9–1.1)	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)	—
Follow-up encounter NOS	0.6 (0.5–0.7)	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)	↑
Chest pain NOS	1.1 (1.0–1.2)	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)	↓
Vomiting	0.9 (0.8–1.0)	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)	↓
Other reason for encounter NEC	1.0 (0.8–1.1)	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)	—
Total RFEs	**150.3 (148.4–152.2)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/13765>).

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. 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: 2005–06 to 2014–15. The direction and type of change from 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

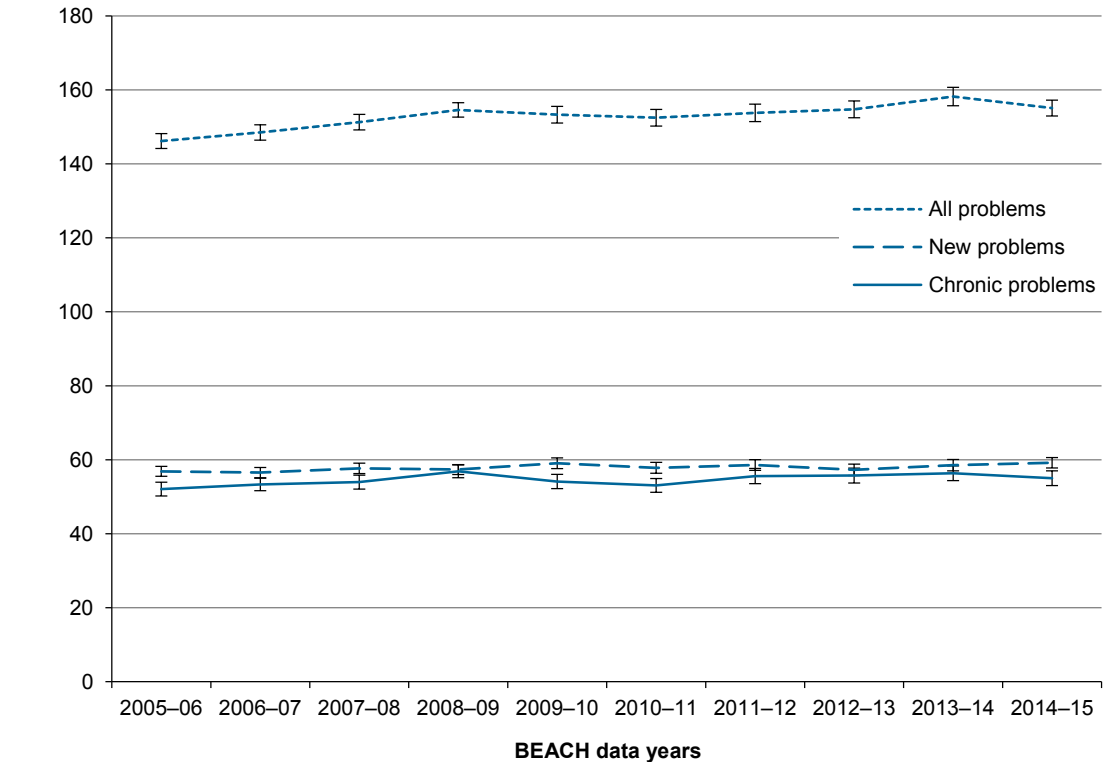
Significant changes in the rate per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2005–06 and 2014–15. Examples of extrapolated change are given. The method used to extrapolate to national change estimates is described in Section 2.9. The number of GP–patient encounters claimed through the MBS nationally increased by 36.2 million (35.8%) between 2005–06 (101.1 million encounters) and 2014–15 (137.3 million encounters). 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 2014–15 BEACH year can be found in the companion report, *General practice activity in Australia 2014–15*.[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, 2.1 per 100 encounters,’ can be regarded as equivalent to ‘asthma is managed at 2.1% 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.



Note: Data are drawn from Tables 7.2, 7.5 and 7.6.

Figure 7.1: Changes in the management rates of all problems, new problems and chronic problems, 2005–06 to 2014–15 (95% confidence intervals)

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 2005–06 to 2014–15. The table allows users to make the following kinds of statements: “in 2014–15 at least one respiratory problem was managed at 17.8% of encounters”, and then extrapolate this result (see Section 2.9). Such extrapolation suggests that at least one respiratory problem was managed at 24.4 million encounters nationally in 2014–15.

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 2014–15. 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 also no change over the decade in the rate at which new problems were managed.

7.1 Number of problems managed

GPs are asked to 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, three 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 there were about 12.3 million more occasions on which two problems were managed, 5.2 million more occasions where three problems were managed, and 2.1 million more occasions where four problems were managed by GPs in Australia in 2014–15 than in 2005–06. Despite the decrease in encounters where only one problem was managed, due to the overall increase in the number of encounters nationally, there were 16.6 million more occasions on which one problem was managed in 2014–15 than in 2005–06.

These results led to a significant increase in the average number of problems managed at encounter, from 146.2 per 100 encounters in 2005–06 to 155.1 in 2014–15 (Table 7.2). This suggests there were an additional 65.1 million problems managed at GP–patient encounters in Australia in 2014–15 than in 2005–06.

7.2 Problems managed by ICPC-2 component

To provide a better understanding of the types of problems managed during general practice encounters, problems managed in general practice may be examined using the components of the ICPC-2 classification. The component structure of ICPC-2 is described in detail in Section 2.8.

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

- 16.0 million more contacts with problems described by GPs in terms of ‘symptoms and complaints’ in 2014–15 than in 2005–06
- 2.7 million more contacts described as ‘medications, treatments and therapeutics’ in 2014–15 than in 2005–06
- 1.6 million more contacts described as ‘test results’ in 2014–15 than in 2005–06
- 1.4 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 2.8), some of which do show change over the decade. There were marginal increases in the management of ‘other diagnoses’ (representing 28.0 million more contacts for the management of ‘other diagnoses’ in 2014–15 than in 2005–06), and neoplasms (representing 2.3 million more contacts for the management of neoplasms in 2014–15 than in 2005–06).

The management rate of ‘infections’ decreased over the 10-year period. However, due to an overall increase in the number of encounters in Australian general practice (as described in the introduction to this chapter), there were actually 5.7 million more contacts with problems classified as infections in 2014–15 than in 2005–06.

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

Problems managed at general practice encounters classified by ICPC-2 chapter are described in Table 7.3a for all years from 2005–06 to 2014–15.

General and unspecified problems were the most frequently managed in 2014–15, with their management rate significantly increasing from 15.1 per 100 encounters in 2005–06 to 19.9 per 100 in 2014–15, an increase of 31.8% over the decade.

There were significant increases in the management rates of some problem types at general practice encounters:

- musculoskeletal problems, from 17.2 to 18.5 per 100 encounters
- psychological problems, from 11.1 to 13.6 per 100 encounters
- endocrine and metabolic problems, from 11.6 to 13.0 per 100 encounters
- digestive problems, from 10.1 to 11.3 per 100 encounters
- neurological problems, from 3.6 to 4.1 per 100 encounters
- urological problems, from 3.1 to 3.5 per 100 encounters
- social problems, from 0.6 to 0.9 per 100 encounters (Table 7.3a).

Over the decade, there was a statistically significant decrease in the management rate of respiratory problems, from 20.6 to 18.5 per 100 encounters. There are many possible reasons for this decline, including education campaigns discouraging the use of antibiotics for URTI and a shift to practice nurses and pharmacists providing influenza vaccinations rather than GPs. Contradicting this trend, a statistically significant spike in the rate of respiratory problems in 2009–10 was likely due to concern regarding H1N1 influenza.

- There was a significant decrease in the management rate of problems classified to the 'eye' chapter, from 2.8 to 2.3 per 100 encounters, and a marginal decrease in the management rate of ear problems over the decade, from 4.0 to 3.6 per 100 encounters.
- 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 in some ICPC-2 chapters. Examples include:
  - general and unspecified problems (from 14.4% of encounters in 2005–06 to 18.4% in 2014–15), representing an additional 10.7 million encounters during which at least one general and unspecified problem was managed in 2014–15 than in 2005–06
  - musculoskeletal problems (from 16.4% to 17.5%), representing an additional 7.5 million encounters during which at least one musculoskeletal problem was managed in 2014–15 than in 2005–06
  - psychological problems (from 10.5% to 12.7%), representing an additional 6.8 million encounters during which at least one psychological problem was managed in 2014–15 than in 2005–06
  - endocrine and metabolic problems (from 10.7% to 11.8%), representing an additional 5.4 million encounters in 2014–15 where at least one endocrine and metabolic problem was managed than in 2005–06.

In contrast, the proportion of encounters during which at least one respiratory problem was managed decreased from 19.8% to 17.8%. However, due to the overall increase in general practice encounters nationally, this equated to an increase of 4.4 million encounters during which at least one respiratory problem was managed in 2014–15 than in 2005–06. Similarly, there was a decrease in the proportion

of encounters during which at least one ear problem was managed, but there were an additional 900,000 encounters during which at least one ear problem was managed in 2014–15 than in 2005–06.

Similarly, the proportion of encounters during which at least one eye problem was managed decreased, but there were an additional 430,000 encounters during which at least one eye problem was managed in 2014–15 than in 2005–06 due to the increase in the number of encounters nationally.

The individual problems managed most frequently are described in Table 7.4. This demonstrates that in all years from 2005–06 to 2014–15, the most frequently managed problems were hypertension, check-up, upper respiratory tract infection (URTI) and depression.

Though the most frequently managed problem across the decade, the management rate of hypertension decreased from 2005–06 to 2014–15, from 9.4 per 100 encounters to 7.9 per 100. However, due to the overall increase in the number of general practice encounters, this equated to an additional 1.3 million encounters at which hypertension was managed in 2014–15 than in 2005–06. Of the most frequently managed problems, hypertension was the only chronic problem with a decreased management rate over the decade. This is worthy of further investigation and will be monitored over the next year.

There was no overall change in the management rate of URTI between 2005–06 and 2014–15. However, as reported in last year's report, *General practice activity in Australia 2013–14*,[20] 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 this year's data (2014–15) the management rate has bounced back to the rate seen in 2012–13 (5.8 per 100 encounters). Reasons for this are unclear, and we will continue to monitor any changes over the coming years.

Over the decade 2005–06 to 2014–15, the management rate of immunisation/vaccination decreased significantly. However, there were numerous fluctuations in the management rate over the decade, with a significant spike in 2009–10 (7.3 per 100) that coincided with the H1N1 influenza pandemic, and a significant decrease in 2014–15 which may be explained by a delay in supply of the influenza vaccine in 2014–15, from early March to late April 2015.[44] The BEACH data year runs from 1 April to 30 March, meaning that fewer influenza vaccinations were given in the 2014–15 BEACH year than usual. This is supported by other results in Table 7.3 of *General practice activity in Australia 2014–15*.[1] While the management rate of immunisation/vaccination for general problems (for example, childhood immunisations) did not significantly differ in 2014–15 (2.0 per 100 encounters) from that of 2013–14 (1.9 per 100 encounters),[20] the management rate of respiratory immunisation/vaccination in 2014–15 was less than half (1.4 per 100 encounters) that seen in 2013–14 (3.6 per 100 encounters).[20] If the 2016 release of influenza vaccine is not delayed, we would expect to see a spike in next year's results.

There were statistically significant increases in the management rates of a number of problem types, including general check-up, depression, back complaints, prescriptions, gastro-oesophageal reflux disease, anxiety, test results, administrative procedure, vitamin/nutritional deficiency, atrial fibrillation/flutter and abnormal test results. When extrapolated to all GP–patient encounters across Australia, these changes represent:

- 2.5 million more occasions of depression management
- 2.0 million more general check-ups in 2014–15 than in 2005–06. 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 75 years and over, the 'Healthy Kids Check' for children of pre-school age (scheduled to be discontinued from 1 November 2015), and those aged 45–49 at risk of developing chronic disease[45]
- 1.9 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

- 1.5 million more occasions where gastro-oesophageal reflux disease was managed
- 1.2 million more occasions of anxiety management
- 1.4 million more contacts for problems regarded as administrative procedures
- 1.4 million more occasions where vitamin/nutritional deficiency was managed
- 880,000 more occasions where atrial fibrillation/flutter was managed.

In contrast, over the decade there was a significant decrease in the management rate of sprain/strains which, when extrapolated to general practice encounters across Australia, represented 170,000 fewer occasions where sprains/strains were managed in 2014–15 than in 2005–06. Whether this represents a decrease in the incidence of sprains/strains in the community or a move to present for sprains/strains to other health services (for example, physiotherapists, emergency departments) rather than general practice is worthy of investigation.

7.4 Most common new problems

There was no change in the management rate of all new problems combined over the decade. URTI was the most frequently managed new problem. Although there was no overall change in its management rate between 2005–06 and 2014–15, there was a marginal decrease in its management rate in 2013–14, from 4.5 per 100 encounters in 2012–13 to 3.8 per 100 encounters in 2013–14, then an increase to 4.4 per 100 in 2014–15. There was also a decrease in new presentations of acute bronchitis/bronchiolitis from 2012–13 (1.7 per 100 encounters) to 2013–14 (1.3 per 100), increasing to 1.6 per 100 in 2014–15 (Table 7.5).

Though there was no overall change over the decade for new presentations for immunisation/ vaccination, significant changes 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 2.2 to 3.1 per 100 encounters). This is likely to be due to the ageing population and MBS items specifically for check-ups (as discussed above). When extrapolated, this increase represents 2.0 million additional occasions where a check-up was managed as a new problem in Australia in 2014–15 compared with 2005–06.

7.5 Most frequently managed chronic problems

To identify chronic conditions, a list classified according to ICPC-2, based on work undertaken by O'Halloran et al. in 2004[32] and regularly updated by O'Halloran (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) may 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.

Table 7.6 shows the most frequently managed chronic problems between 2005–06 and 2014–15. The management rate of chronic conditions did not change overall between 2005–06 (52.1 per 100 encounters) and 2014–15 (55.0 per 100 encounters), however there were significant changes throughout the decade, notably in 2008–09, when the rate increased to 56.9 per 100 encounters. However, due to the increase in the number of GP visits nationally, we estimate that GPs managed 23 million more chronic problems in 2014–15 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 2005–06 to 2014–15, there were significant increases in the management rates of:

- depressive disorder (representing 2.4 million more occasions of management in 2014–15 than in 2005–06)
- oesophageal disease (representing 1.4 million more occasions of management)
- atrial fibrillation/flutter (representing 880,000 million more occasions of management)
- chronic back pain (520,000 more contacts for this problem) and unspecified chronic pain (representing 480,000 more contacts for this problem in 2014–15 than in 2005–06).

There were marginally significant increases in the management rates of the following:

- non-gestational diabetes (representing 2.0 million more occasions of management in 2014–15 than in 2005–06)
- malignant neoplasms of the skin (640,000 more contacts for this problem)
- chronic obstructive pulmonary disease (representing 530,000 more occasions of management)
- hypothyroidism/myxoedema (representing 390,000 more occasions of management)
- shoulder syndrome (460,000 more contacts for this problem)
- obesity (350,000 more contacts for this problem in 2014–15 than in 2005–06).

Table 7.1: Number of problems managed at encounter, 2005–06 to 2014–15

Number of problems managed at encounter	Per cent of encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[a]
One problem	66.4 (65.1–67.6)	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)	↓
Two problems	23.4 (22.7–24.1)	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)	↑
Three problems	7.9 (7.4–8.4)	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)	↑
Four problems	2.3 (2.1–2.6)	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)	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06.

Note: CI – confidence interval.

Table 7.2: Problems managed by ICPC-2 component, 2005–06 to 2014–15

ICPC-2 chapter	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓[(a)]
Diagnosis, diseases	100.2 (98.3–102.0)	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)	—
Infections	25.7 (25.0–26.5)	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)	↓
Injuries	7.2 (6.9–7.5)	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)	—
Neoplasms	4.0 (3.8–4.3)	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)	↑
Congenital anomalies	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	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)	—
Other diagnoses, diseases	62.5 (60.6–64.4)	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)	↑
Symptoms and complaints	25.7 (24.9–26.5)	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)	↑
Diagnostic and preventive procedures	13.7 (13.1–14.4)	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)	—
Medications, treatments and therapeutics	3.2 (3.0–3.5)	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)	↑
Results	1.4 (1.3–1.6)	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)	↑
Administrative	0.7 (0.6–0.8)	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)	↑
Referrals and other RFEs	1.2 (1.1–1.4)	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)	—
Total problems	**146.2 (144.2–148.2)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

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

Table 7.3a: Problems managed by ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
General and unspecified	15.1 (14.5–15.7)	16.2 (15.6–16.8)	17.8 (17.1–18.5)	17.0 (16.4–17.6)	19.4 (18.6–20.1)	19.2 (18.4–20.0)	18.5 (17.8–19.2)	19.3 (18.6–20.1)	20.3 (19.4–21.2)	19.9 (19.1–20.7)	↑
Musculoskeletal	17.2 (16.7–17.7)	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)	↑
Respiratory	20.6 (19.9–21.3)	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)	↓
Skin	16.7 (16.1–17.2)	17.6 (16.9–18.2)	17.2 (16.5–17.9)	17.0 (16.5–17.5)	16.5 (15.9–17.1)	16.8 (16.3–17.3)	16.7 (16.1–17.2)	16.9 (16.3–17.5)	17.9 (17.2–18.6)	17.1 (16.6–17.7)	—
Circulatory	16.9 (16.1–17.7)	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)	§
Psychological	11.1 (10.5–11.7)	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)	↑
Endocrine and metabolic	11.6 (11.0–12.2)	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)	↑
Digestive	10.1 (9.8–10.4)	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)	↑
Female genital system	5.8 (5.4–6.2)	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)	—
Neurological	3.6 (3.4–3.8)	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)	↑
Pregnancy and family planning	3.8 (3.6–4.1)	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)	—
Ear	4.0 (3.8–4.2)	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)	↓
Urology	3.1 (2.9–3.2)	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)	↑
Eye	2.8 (2.6–2.9)	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)	↓

(continued)

Table 7.3a (continued): Problems managed by ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Male genital system	1.9 (1.7–2.0)	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)	—
Blood & blood-forming organs	1.5 (1.4–1.6)	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)	—
Social problems	0.6 (0.5–0.7)	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)	↑
Total problems	**146.2 (144.2–148.2)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Per cent of encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[a]
General and unspecified	14.4 (13.9–15.0)	15.4 (14.9–15.9)	16.8 (16.2–17.4)	16.1 (15.5–16.6)	18.1 (17.4–18.8)	17.9 (17.2–18.5)	17.3 (16.7–17.9)	18.0 (17.3–18.6)	18.7 (18.0–19.4)	18.4 (17.7–19.0)	↑
Respiratory	19.8 (19.1–20.4)	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)	↓
Musculoskeletal	16.4 (16.0–16.9)	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)	↑
Skin	15.8 (15.3–16.3)	16.5 (16.0–17.1)	16.1 (15.6–16.7)	16.1 (15.7–16.5)	15.6 (15.1–16.2)	15.9 (15.4–16.3)	15.7 (15.2–16.2)	16.0 (15.5–16.5)	16.8 (16.2–17.4)	16.2 (15.7–16.7)	—
Circulatory	15.8 (15.1–16.4)	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)	—
Psychological	10.5 (10.0–11.0)	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)	↑
Endocrine and metabolic	10.7 (10.2–11.2)	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)	↑
Digestive	9.7 (9.5–10.0)	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)	↑
Female genital system	5.3 (5.0–5.6)	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)	—
Neurological	3.5 (3.4–3.7)	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)	↑
Pregnancy and family planning	3.7 (3.5–4.0)	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)	—
Ear	4.0 (3.8–4.1)	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)	↓
Urology	3.0 (2.9–3.2)	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)	↑
Eye	2.7 (2.6–2.9)	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)	↓

(continued)

Table 7.3b (continued): Presence of at least one problem managed per ICPC-2 chapter, 2005–06 to 2014–15

ICPC-2 chapter	Per cent of encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Male genital system	1.8 (1.7–2.0)	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)	—
Blood & blood-forming organs	1.5 (1.4–1.6)	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)	—
Social problems	0.6 (0.5–0.7)	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)	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

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

Table 7.4: Most frequently managed problems, 2005–06 to 2014–15

Problem managed	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓[a]
Hypertension*	9.4 (8.9–10.0)	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)	↓
Check-up – all*	6.4 (6.0–6.8)	6.6 (6.2–7.0)	6.3 (6.0–6.7)	6.7 (6.3–7.1)	6.6 (6.3–7.0)	6.4 (6.1–6.8)	6.4 (6.0–6.8)	6.4 (6.0–6.8)	7.0 (6.5–7.4)	6.9 (6.5–7.2)	—
General check-up*	2.1 (1.9–2.2)	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 (2.8–3.3)	3.0 (2.8–3.2)	↑
Female genital check-up/Pap smear*	1.8 (1.6–2.0)	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)	—
Cardiovascular check-up*	1.2 (1.0–1.3)	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)	—
Upper respiratory tract infection	6.2 (5.8–6.6)	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)	§
Depression*	3.6 (3.4–3.8)	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)	↑
Diabetes – all*	3.5 (3.3–3.8)	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)	↑
Arthritis – all*	3.8 (3.6–4.0)	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)	—
Osteoarthritis*	2.7 (2.5–2.9)	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)	—
Immunisation/ vaccination – all*	5.0 (4.6–5.4)	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)	↓
Back complaint*	2.6 (2.5–2.8)	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)	↑
Lipid disorder	3.4 (3.1–3.7)	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)	§
Prescription – all*	2.0 (1.7–2.2)	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)	↑

(continued)

Table 7.4 (continued): Most frequently managed problems, 2005–06 to 2014–15

Problem managed	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓[a]
Gastro-oesophageal reflux disease*	2.3 (2.1–2.5)	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)	↑
Anxiety*	1.8 (1.6–2.0)	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)	↑
Test results*	1.4 (1.3–1.6)	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)	↑
Acute bronchitis/ bronchiolitis	2.5 (2.3–2.7)	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)	—
Asthma	2.3 (2.1–2.4)	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)	—
Contact dermatitis	1.8 (1.7–1.9)	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)	—
Urinary tract infection*	1.8 (1.6–1.9)	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)	—
Sleep disturbance	1.6 (1.5–1.7)	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)	—
Administrative procedure – all*	0.7 (0.6–0.8)	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)	↑
Vitamin/nutritional deficiency	0.5 (0.4–0.6)	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)	↑
Gastroenteritis*	1.5 (1.4–1.7)	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)	↓
Atrial fibrillation/flutter	0.9 (0.8–1.0)	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)	↑
Abnormal test results*	0.7 (0.7–0.8)	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)	↑
Solar keratosis/sunburn	1.2 (1.1–1.3)	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)	—

(continued)

Table 7.4 (continued): Most frequently managed problems, 2005–06 to 2014–15

Problem managed	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Pregnancy*	0.9 (0.8–1.0)	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)	↑
Malignant neoplasm, skin	1.0 (0.9–1.1)	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)	↑
Bursitis/tendonitis/ synovitis NOS	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)	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)	↑
Sinusitis acute/chronic	1.3 (1.2–1.4)	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)	—
Sprain/strain*	1.8 (1.6–1.9)	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)	↓
Headache*	1.2 (1.2–1.3)	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)	—
Ischaemic heart disease*	1.3 (1.2–1.4)	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)	—
Viral disease, other/NOS	1.2 (1.0–1.4)	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)	—
Laceration/cut	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (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)	↑
Skin disease, other	1.0 (0.9–1.1)	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)	—
Oral contraception*	1.2 (1.1–1.3)	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)	↓
Fracture*	1.0 (0.9–1.1)	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)	—
Chronic obstructive pulmonary disease	0.7 (0.6–0.8)	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)	↑
Acute otitis media/myringitis	1.2 (1.0–1.3)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.0 (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)	↓

(continued)

Table 7.4 (continued): Most frequently managed problems, 2005–06 to 2014–15

Problem managed	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓(a)
Observation/health education/advice/diet – all*	0.7 (0.6–0.8)	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)	↑
Osteoporosis	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)	0.7 (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)	—
Tonsillitis*	1.1 (1.0–1.2)	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)	↓
Total problems	**146.2 (144.2–148.2)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/13765>).

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, 2005–06 to 2014–15

New problem managed	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Upper respiratory tract infection	4.8 (4.4–5.2)	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)	§
Check-up – all*	2.2 (2.1–2.4)	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 (2.7–3.1)	3.0 (2.7–3.2)	3.1 (2.9–3.3)	↑
Immunisation/ vaccination – all*	2.7 (2.5–3.0)	2.8 (2.5–3.1)	2.8 (2.5–3.0)	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)	§
Acute bronchitis/ bronchiolitis	1.9 (1.7–2.1)	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)	§
Urinary tract infection*	1.2 (1.1–1.3)	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)	—
Gastroenteritis*	1.3 (1.2–1.4)	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)	↓
Sprain/strain*	1.1 (1.0–1.2)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	↓
Total new problems	**56.9 (55.5–58.2)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/13765>).

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, 2005–06 to 2014–15

Chronic problem managed	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Hypertension (non-gestational)**	9.4 (8.9–10.0)	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)	↓
Depressive disorder**	3.6 (3.4–3.8)	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)	↑
Diabetes (non-gestational)**	3.5 (3.3–3.7)	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)	↑
Chronic arthritis**	3.8 (3.5–4.0)	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)	—
Lipid disorder	3.4 (3.1–3.7)	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)	—
Oesophageal disease	2.4 (2.2–2.5)	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)	↑
Asthma	2.3 (2.1–2.4)	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)	—
Atrial fibrillation/flutter	0.9 (0.8–1.0)	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)	↑
Malignant neoplasm, skin	1.0 (0.9–1.1)	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)	↑
Ischaemic heart disease**	1.3 (1.2–1.4)	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)	—
Back syndrome with radiating pain**	0.9 (0.8–1.0)	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)	—
Chronic obstructive pulmonary disease	0.7 (0.6–0.8)	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)	↑
Osteoporosis	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)	0.7 (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)	—

(continued)

Table 7.6 (continued): Most frequently managed chronic problems, 2005–06 to 2014–15

Chronic problem managed	Rate per 100 encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[(a)]
Hypothyroidism/ myxoedema	0.7 (0.6–0.7)	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)	↑
Shoulder syndrome (excluding arthritis)**	0.5 (0.4–0.6)	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)	↑
Obesity (BMI > 30)	0.6 (0.5–0.6)	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)	↑
Migraine	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (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)	—
Heart failure	0.6 (0.6–0.7)	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)	—
Chronic back pain**	0.3 (0.2–0.3)	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)	**↑**
Chronic skin ulcer (including varicose ulcer)	0.6 (0.5–0.7)	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)	—
Chronic pain NOS	0.2 (0.2–0.3)	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)	**↑**
Gout	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)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	—
Schizophrenia	0.5 (0.4–0.5)	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)	—
Anxiety disorder**	0.4 (0.4–0.5)	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)	—
Dementia (including senile, Alzheimer's)	0.5 (0.4–0.6)	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)	—
Total chronic problems	**52.1 (50.2–54.0)**	**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)**	§

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

** 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/2123/13765>)

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 2014–15.

8 Overview of management

This chapter provides an overview of the management of problems in general practice from each of the most recent 10 years of the BEACH study from 2005–06 to 2014–15. More detailed analyses of the overview of management in 2014–15 can be found in Chapter 8 in *General practice activity in Australia 2014–15*.[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 2014–15 than in 2005–06. 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 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 2005–06 and 2014–15, 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 medications prescribed, supplied by the GP, or advised for over-the-counter purchase, from 71.4 per 100 problems managed in 2005–06 to 66.5 per 100 problems in 2014–15.
- The major contributors to the above change were significant decreases in the rates of prescribed medications over the time period, from 58.7 to 55.2 per 100 problems, and GP-supplied medications, from 6.0 to 5.2 per 100 problems.
- The rate of other treatments increased significantly, from 29.9 to 32.8 per 100 problems, influenced by the significant increase in procedural treatments. The rate of GP-provided procedures increased from 9.9 to 10.9 per 100 problems over the decade.
- The rate of referrals to other health providers significantly increased, from 8.2 to 10.3 per 100 problems managed between 2005–06 and 2014–15, influenced by an 11% increase in referrals to medical specialists (from 5.6 to 6.2 per 100 problems managed) and a 65% increase in referrals to

allied health services over the period (from 2.0 to 3.3 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 15%, from 26.4 tests/batteries per 100 problems managed in 2005–06 to 30.3 per 100 in 2014–15.
- The rate at which imaging was ordered increased significantly from 6.0 imaging orders per 100 problems managed in 2005–06 to 7.4 per 100 in 2014–15, a rise of 23%.

Similar changes between 2005–06 and 2014–15 were apparent in the percentage of problems (Table 8.2a), and the percentage of encounters where at least one management type was recorded (Table 8.2b).

Table 8.2a shows that over the decade 2005–06 to 2014–15, the proportion of problems for which:

- at least one medication or other treatment type was provided decreased significantly, from 73.5% of problems to 70.5%
- at least one medication was provided decreased significantly (from 56.5% of problems to 51.8%), mainly influenced by a significant decrease in the proportion of problems for which medication was prescribed, from 47.7% to 43.8% over this time
- at least one other treatment was provided increased significantly, from 26.9 to 29.4, mainly due to a significant increase in the proportion of problems for which at least one procedure was undertaken. This increased from 9.3% to 10.3%
- at least one referral was given, increased significantly (from 8.2% of problems to 10.2%), particularly to medical specialists (5.6% to 6.3%), and allied health services (2.0% to 3.3%)
- at least one investigation was ordered, increased significantly from 17.6% of problems to 19.0%.
  - In 2005–06, the likelihood of at least one imaging test being ordered was 5.5%, and this increased significantly to 6.6% in 2014–15.
  - This is the first 10-year period of BEACH data (since 1998) that there was not a significant increase in the likelihood of tests being ordered in the management of problems.
  - There was a significant decrease in the proportion of problems for which other investigations were ordered, from 0.7% to 0.5% over the 10-year data period.

Table 8.1a: Summary of management (rate per 100 problems), 2005–06 to 2014–15

Management type	Rate per 100 problems (95% CI) 2005–06 (*n* = 149,088)	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)	↑↓[(a)]
Medications	71.4 (69.9–72.9)	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)	↓
Prescribed	58.7 (57.2–60.3)	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)	↓
GP-supplied	6.0 (5.6–6.5)	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)	5.6 (5.2–6.1)	5.2 (4.8–5.5)	↓
Advised OTC	6.7 (6.2–7.2)	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)	6.5 (6.0–6.9)	6.1 (5.7–6.6)	—
Other treatments	29.9 (28.5–31.2)	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)	↑
Clinical*	20.0 (18.8–21.2)	19.9 (18.7–21.1)	22.8 (21.6–24.1)	22.0 (20.8–23.2)	22.8 (21.3–24.3)	23.3 (21.8–24.8)	24.0 (22.6–25.5)	23.6 (22.2–25.1)	23.8 (22.4–25.1)	21.8 (20.6–23.1)	—
Procedural*	9.9 (9.4–10.3)	10.2 (9.7–10.7)	11.0 (10.5–11.6)	10.8 (10.4–11.3)	11.4 (10.8–12.1)	11.1 (10.6–11.6)	11.0 (10.5–11.5)	11.2 (10.7–11.8)	11.9 (11.4–12.4)	10.9 (10.5–11.4)	↑
Referrals & admissions	8.2 (7.9–8.5)	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)	↑
Medical specialist*	5.6 (5.4–5.8)	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)	↑
Allied health services*	2.0 (1.8–2.1)	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)	↑
Hospital*	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (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)	—
Emergency department*	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)	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)	↑
Other referrals*	0.3 (0.2–0.3)	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)	↑

(continued)

Table 8.1a (continued): Summary of management (rate per 100 problems), 2005–06 to 2014–15

Management type	Rate per 100 problems (95% CI)										↑↓(a)
	2005–06 (*n* = 149,088)	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)	
Pathology	26.4 (25.3–27.5)	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)	↑
Imaging	6.0 (5.8–6.3)	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)	↑
Other investigations	0.7 (0.6–0.7)	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)	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/13765>)

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

Table 8.1b: Summary of management (rate per 100 encounters), 2005–06 to 2014–15

Management type	Rate per 100 encounters (95% CI)										
	2005–06 (*n* = 101,993)	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)	↑↓[(a)]
Medications	104.4 (101.8–107.0)	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)	—
Prescribed	85.8 (83.3–88.4)	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)	83.2 (81.0–85.5)	83.5 (81.2–85.8)	85.5 (83.1–88.0)	—
GP-supplied	8.8 (8.2–9.5)	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)	8.9 (8.2–9.6)	8.0 (7.4–8.6)	§
Advised OTC	9.8 (9.0–10.5)	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)	10.2 (9.4–11.0)	9.5 (8.8–10.2)	—
Other treatments	43.6 (41.5–45.8)	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)	↑
Clinical*	29.2 (27.3–31.1)	29.5 (27.6–31.4)	34.5 (32.5–36.5)	34.0 (32.1–35.9)	35.0 (32.6–37.4)	35.5 (33.2–37.8)	37.0 (34.6–39.3)	36.5 (34.2–38.9)	37.6 (35.3–39.8)	33.9 (31.8–36.0)	↑
Procedural*	14.4 (13.7–15.1)	15.2 (14.4–16.0)	16.7 (15.9–17.5)	16.7 (16.0–17.5)	17.5 (16.5–18.6)	16.9 (16.1–17.8)	16.9 (16.1–17.8)	17.4 (16.5–18.3)	18.9 (18.0–19.7)	17.0 (16.2–17.8)	↑
Referrals & admissions	12.0 (11.5–12.5)	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)	↑
Medical specialist*	8.2 (7.8–8.5)	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)	↑
Allied health services*	2.9 (2.7–3.1)	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)	↑
Hospital*	0.4 (0.3–0.4)	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)	—
Emergency department*	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	↑
Other referrals*	0.4 (0.3–0.4)	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)	↑

(continued)

Table 8.1b (continued): Summary of management (rate per 100 encounters), 2005–06 to 2014–15

Management type	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Pathology	38.6 (36.9–40.3)	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)	↑
Imaging	8.8 (8.4–9.2)	9.0 (8.6–9.3)	9.5 (9.2–9.9)	9.8 (9.4–10.2)	9.8 (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)	↑
Other investigations	1.0 (0.9–1.1)	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)	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/13765>)

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

Table 8.2a: Problems for which at least one management was recorded (per cent of problems), 2005–06 to 2014–15

	Per cent of problems (95% CI)										
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	↑↓[(a)]
At least one …	(*n* = 149,088)	(*n* = 136,333)	(*n* = 145,078)	(*n* = 149,462)	(*n* = 155,373)	(*n* = 146,141)	(*n* = 152,286)	(*n* = 152,517)	(*n* = 151,675)	(*n* = 153,133)	
Management type	86.2 (85.6–86.9)	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)	—
Medication or other treatment	73.5 (72.7–74.4)	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)	↓
Medication	56.5 (55.4–57.5)	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)	↓
Prescription	47.7 (46.6–48.8)	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)	↓
GP-supplied	4.5 (4.2–4.9)	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)	§
Advised OTC	6.0 (5.6–6.5)	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)	—
Other treatment	26.9 (25.8–28.1)	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)	↑
Clinical*	18.3 (17.2–19.3)	18.0 (17.0–19.1)	20.6 (19.6–21.7)	20.0 (18.9–21.0)	20.6 (19.3–21.8)	20.9 (19.6–22.1)	21.4 (20.2–22.6)	21.0 (19.8–22.2)	21.4 (20.2–22.5)	19.9 (18.8–21.0)	—
Procedural*	9.3 (8.9–9.7)	9.6 (9.2–10.1)	10.3 (9.8–10.8)	10.1 (9.7–10.5)	10.7 (10.1–11.3)	10.4 (9.9–10.9)	10.3 (9.8–10.7)	10.5 (10.0–11.0)	11.2 (10.7–11.6)	10.3 (9.9–10.8)	↑
Referrals & admissions	8.2 (7.9–8.5)	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)	↑
Medical specialist*	5.6 (5.4–5.9)	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)	↑
Allied health services*	2.0 (1.8–2.1)	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)	↑
Hospital*	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 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	—

(continued)

Table 8.2a (continued): Problems for which at least one management was recorded (per cent of problems), 2005–06 to 2014–15

At least one …	Per cent of problems (95% CI)										↑↓(a)
	2005–06 (*n* = 149,088)	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)	
Emergency department*	0.1 (0.1–0.2)	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)	↑
Other referrals*	0.3 (0.2–0.3)	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)	↑
Investigation	17.6 (17.1–18.1)	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)	↑
Pathology order	12.7 (12.2–13.2)	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)	—
Imaging order	5.5 (5.3–5.7)	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)	↑
Other investigation	0.7 (0.6–0.7)	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)	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/13765>)

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

Table 8.2b: Proportion of total encounters at which at least one management was recorded (per cent of encounters), 2005–06 to 2014–15

	Per cent of encounters (95% CI)										
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	↑↓[(a)]
At least one...	(*n* = 101,993)	(*n* = 91,805)	(*n* = 95,898)	(*n* = 96,688)	(*n* = 101,349)	(*n* = 95,839)	(*n* = 99,030)	(*n* = 98,564)	(*n* = 95,879)	(*n* = 98,728)	
Management type	91.2 (90.6–91.8)	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)	—
Medication or other treatment	81.4 (80.6–82.1)	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)	—
Medication	65.2 (64.3–66.2)	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)	↓
Prescription	55.6 (54.5–56.6)	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)	↓
GP-supplied	6.4 (6.0–6.9)	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)	§
Advised OTC	8.6 (8.0–9.2)	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)	—
Other treatment	35.1 (33.7–36.6)	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)	↑
Clinical*	24.0 (22.7–25.4)	23.8 (22.5–25.2)	27.5 (26.1–28.9)	27.3 (26.0–28.6)	27.7 (26.1–29.2)	27.9 (26.3–29.5)	28.5 (26.9–30.0)	28.3 (26.8–29.9)	29.3 (27.8–30.8)	26.9 (25.4–28.3)	↑
Procedural*	13.2 (12.6–13.8)	13.8 (13.2–14.5)	15.0 (14.3–15.7)	15.0 (14.4–15.6)	15.7 (14.8–16.6)	15.1 (14.4–15.8)	15.2 (14.5–15.8)	15.6 (14.9–16.3)	16.8 (16.1–17.5)	15.4 (14.7–16.0)	↑
Referrals & admissions	11.3 (10.9–11.8)	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)	↑
Medical specialist*	7.9 (7.5–8.2)	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)	↑
Allied health services*	2.8 (2.6–3.0)	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)	↑
Hospital*	0.4 (0.3–0.4)	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)	—

(continued)

Table 8.2b (continued): Proportion of total encounters at which at least one management was recorded (per cent of encounters), 2005–06 to 2014–15

At least one …	Per cent of encounters (95% CI)										↑↓(a)
	2005–06 (*n* = 101,993)	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)	
Emergency department*	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	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)	↑
Other referrals*	0.4 (0.3–0.4)	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)	↑
Investigation	22.6 (21.9–23.3)	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)	↑
Pathology order	16.4 (15.8–16.9)	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)	↑
Imaging order	7.8 (7.4–8.1)	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)	↑
Other investigation	1.0 (0.9–1.1)	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)	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/13765>)

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 2005–06 to 2014–15. The direction and type of change over the study period is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 2014–15, there were 36.2 million more encounters claimed through Medicare than there were in 2005–06 (137.3 million versus 101.1 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 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 2014–15 can be found in Chapter 9 of *General practice activity in Australia 2014–15*.[1]

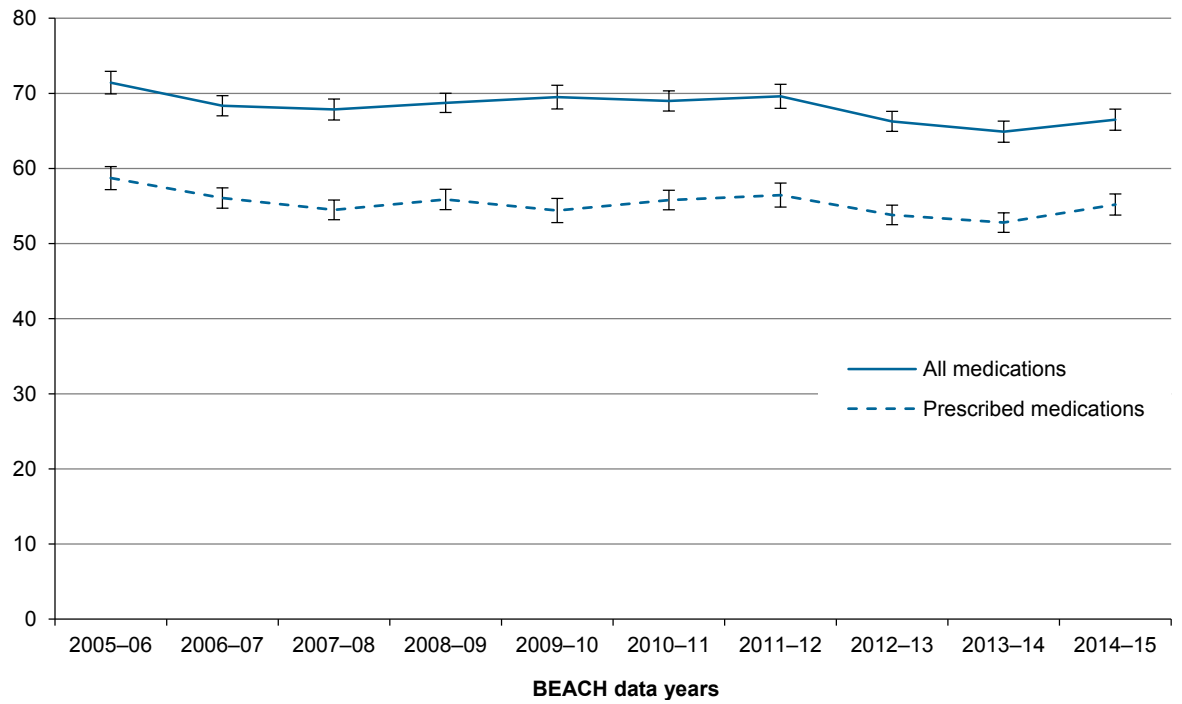
Medication data for the 10 years 2005–06 to 2014–15, are reported in two ways in this chapter: as rates per 100 problems managed and as rates per 100 encounters. In describing data over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase in the 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).

Figure 9.1 and Table 9.1a show that between 2005–06 and 2014–15, there was a significant decrease in prescribed medication and total medication rates per 100 problems managed. However, Table 9.1b shows those changes were not significant per 100 encounters.

GP-supplied medications showed a significant decrease per 100 problems managed but no change per 100 encounters between 2005–06 and 2014–15 (Tables 9.1a and 9.1b).

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



Note: Data are drawn from Table 9.1a.

Figure 9.1: All medications and prescribed medications: rates per 100 problems managed, 2005–06 to 2014–15 (95% confidence intervals)

9.1 Prescribed medications

The rate at which medications were prescribed per 100 problems managed decreased significantly from 2005–06 (58.7 per 100 problems) to 2014–15 (55.2 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 30.6 million more prescriptions being given nationally by GPs in 2014–15 than in 2005–06.

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 these groups are 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 2005–06 to 3.0 in 2014–15. The extrapolated national effect of this change (calculated from the encounter rate from Table 9.2b) was about 3.1 million more prescriptions for drugs in this group given in 2014–15 than in 2005–06
- lipid modifying agents, from 2.3 per 100 problems in 2005–06 to 2.5 in 2014–15. The extrapolated national effect of this marginal change was that about 2.2 million more prescriptions for drugs in this group were given in 2014–15 than in 2005–06
- drugs for acid-related digestive disorders, from 2.1 per 100 problems in 2005–06 to 2.5 in 2014–15. The extrapolated national effect of this change was that about 2.1 million more prescriptions for drugs in this group were given in 2014–15 than in 2005–06

- corticosteroids for systemic use, from 0.9 per 100 problems in 2005–06 marginally up to 1.1 in 2014–15, an estimated 1.0 million more prescriptions nationally in 2014–15 than in 2005–06
- antiepileptics, from 0.4 per 100 problems in 2005–06 to 0.9 in 2014–15, with an extrapolated national effect of 1.2 million more prescriptions nationally in 2014–15
- thyroid therapy, from 0.5 per 100 problems in 2005–06 to 0.6 in 2014–15, which resulted in an extrapolated national effect of 670,000 million more prescriptions nationally in 2014–15 than in 2005–06.

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 represented a national increase in total prescriptions. As shown in Table 9.2a, some of the measured decreases in the prescription rate per 100 problems were for:

- antibacterials for systemic use, from 10.0 per 100 problems managed in 2005–06 to 8.7 in 2014–15, 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 2014–15 than in 2005–06 due to the increase in encounter numbers nationally
- drugs for obstructive airway disease, from 2.7 per 100 problems managed in 2005–06 to (marginally lower) 2.3 in 2014–15, but the estimated national effect of this change was that about 1 million more prescriptions for drugs in this group were given in 2014–15 than in 2005–06 due to the increase in encounter numbers
- anti-inflammatory and antirheumatic products, from 2.7 per 100 problems in 2005–06 to 2.0 in 2014–15, with an extrapolated national effect of about 180,000 more prescriptions for these products nationally in 2014–15 than in 2005–06
- sex hormones and modulators of the genital system, from 2.1 per 100 problems in 2005–06 to 1.6 in 2014–15, which led to an extrapolated national effect of about 260,000 more prescriptions for this drug group nationally in 2014–15 than in 2005–06
- beta blocking agents, from 1.3 per 100 problems in 2005–06 to 1.1 in 2014–15, leading to an extrapolated national effect of about 280,000 more prescriptions for them nationally in 2014–15 than in 2005–06
- ophthalmologicals, from 1.2 per 100 problems in 2005–06 to 0.9 in 2014–15, but an estimated increase of 100,000 prescriptions nationally in 2014–15 than in 2005–06
- calcium channel blockers, from 1.5 per 100 problems in 2005–06 to 0.9 in 2014–15, leading to an extrapolated national effect of about 300,000 fewer prescriptions for them nationally in 2014–15 than in 2005–06
- vaccines, from 1.7 per 100 problems in 2005–06 to 0.6 in 2014–15, an estimated decrease of 1.2 million vaccine prescriptions given nationally in 2014–15 than in 2005–06.

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, and the rise in drugs for acid-related disorders matches the increase in the rate of gastro-oesophageal reflux disease management. 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 calcium channel blockers and diuretics). The decrease in systemic antibacterials over the decade may be linked to improving public awareness of the negative effects of antibiotic overuse. It could also be associated with the significant

decreases in management rates of infections overall, and respiratory problems, particularly tonsillitis, as seen in Chapter 7.

When no statistically significant change occurs in the 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 drugs used in diabetes, the rate of which remained steady over the study period. However, we estimate that due to the increase in GP attendances, about 1.2 million more drugs used in diabetes were prescribed in 2014–15 than in 2005–06.

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 significant change in the prescribing rate per 100 problems for a number of drugs, including:

- the proton pump inhibitor esomeprazole, which rose from 0.6 per 100 problems in 2005–06 to 1.1 per 100 in 2014–15, with an extrapolated national effect of 1.6 million more esomeprazole prescriptions given in 2014–15 than in 2005–06 (calculated from the encounter rate in Table 9.3b)
- the opioid oxycodone, which more than doubled from 0.5 per 100 problems managed in 2005–06 to 1.1 in 2014–15, with an extrapolated national effect of about 1.5 million more prescriptions for oxycodone nationally in 2014–15 than 10 years earlier
- the lipid modifying agent rosuvastatin, which was first listed on the PBS in December 2006, and rose from 0.2 per 100 problems in 2007–08 to 0.9 per 100 in 2014–15, an estimated 1 million more prescriptions than in 2007–08
- another proton pump inhibitor, pantoprazole, rose from 0.3 per 100 problems in 2005–06 to 0.5 in 2014–15, an extrapolated increase of 590,000 more pantoprazole prescriptions between the two study points
- the antiepileptic pregabalin, which was first listed in 2005 as an anticonvulsant and in 2012 as a treatment for neuropathic pain, rose from 0.0 to 0.5 per 100 problems, an estimated 960,000 more prescriptions in 2014–15 than 10 years earlier.

In 2014–15, a large number of medications were prescribed less frequently than in 2005–06, some decreases being associated with a decrease in problems managed with that medication (for example, amoxycillin); low-cost over-the-counter availability, particularly from supermarkets (for example, paracetamol); becoming part of combination medications (for example, irbesartan); or by being superseded by newer drugs within the group (for example, atorvastatin). Some of the decreases observed in the prescription rate per 100 problems were for:

- the broad spectrum penicillin amoxycillin, from 2.4 per 100 problems in 2005–06 to 2.0 per 100 problems in 2014–15, with an extrapolated national effect of about 480,000 more prescriptions for this product nationally in 2014–15 than in 2005–06 (due to the increase in attendances)
- plain paracetamol, from 2.1 per 100 problems in 2005–06 to 1.6 per 100 problems in 2014–15, but this decrease showed an extrapolated national effect of about 260,000 more prescriptions for this medication nationally in 2014–15 than in 2005–06
- paracetamol in combinations with codeine, from 1.4 per 100 problems in 2005–06 to 1.1 per 100 problems in 2014–15, with this decrease showing an extrapolated national effect of about 450,000 more prescriptions for these products nationally in 2014–15 than in 2005–06
- the lipid modifying agent atorvastatin, from 1.1 per 100 problems in 2005–06 to 0.9 in 2014–15, but this decrease suggested 300,000 more prescriptions nationally for atorvastatin in 2014–15 than in 2005–06
- the angiotensin II antagonist irbesartan, from 0.7 per 100 problems in 2005–06 to 0.5 in 2014–15, suggesting 150,000 fewer prescriptions nationally for irbesartan as a single agent in 2014–15 than in 2005–06

- the beta blocking agent atenolol, from 0.7 per 100 problems in 2005–06 to 0.4 in 2014–15, resulting in an estimated 50,000 fewer prescriptions for this drug as a single agent. Both irbesartan and atenolol now generally form part of combination medications.

Number of repeats ordered

The pattern of the number of repeat prescriptions recorded by GPs changed between 2005–06 and 2014–15 (Table 9.4). There was a significant decrease in the proportion of prescribed medications with one repeat 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 31.7% in 2005–06 to 36.6% in 2014–15. This is probably associated with the increased management rate of chronic problems for which medications are commonly prescribed with five repeats.

9.2 Medications supplied by GPs

The rate of total GP-supplied medications per 100 problems managed was significantly lower in 2014–15 (5.2) than in 2005–06 (6.0) (Table 9.5a). The peak in 2009–10 reflects the high rate of influenza virus vaccine (which accounts for a considerable proportion of all GP-supplied drugs) supplied at the time of the H1N1 influenza pandemic.

Table 9.5a shows rates per 100 problems managed of individual medications most frequently supplied by GPs between 2005–06 and 2014–15. Eight of the top 10 were vaccines, and rates of most childhood vaccines increased. The peak in supply of influenza virus vaccine can be seen in 2009–10 but influenza vaccine supply decreased significantly from 2005–06 to 2014–15 as did the prescribing rate (Table 9.3a). There was also a significant decrease from 2013–14 to 2014–15. The latter finding can be 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 outside this study period. The significant decrease in immunisation as a problem managed (Chapter 7) is also influenced by the change in influenza vaccination rate, as childhood vaccinations have generally increased either significantly or marginally. However, the notable decrease over the decade could also be associated with the growing likelihood of the vaccine being given by practice nurses and therefore not always included in the encounter data recorded by the GP, and the move in most Australian States towards suitably trained pharmacists and nurses administering the vaccine at pharmacies and nurse-run clinics.

Other changes in GP-supplied medications were the supply of vitamin B12 which increased significantly, and supply of meloxicam, the frequency of which decreased.

9.3 Medications advised for over-the-counter purchase

Table 9.6a shows there was no change in the rate per 100 problems managed for total advised OTC medications. Individual medication rates largely remained steady over the decade. The exception was a significant increase in the rate at which vitamin D3 (cholecalciferol) was advised. The increase began to be apparent in 2008–09, about the same time as a doubling of the management rate of nutritional/vitamin deficiency, which has maintained the much higher rate (see Chapter 7).

Table 9.1a: Rates of medications prescribed, supplied and advised for over-the-counter purchase (rate per 100 problems), 2005–06 to 2014–15

Medications	Rate per 100 problems (95% CI)										↑↓ (a)
	2005–06 (*n* = 149,088)	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)	
Prescribed	58.7 (57.2–60.3)	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)	↓
GP-supplied	6.0 (5.6–6.5)	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)	↓
Advised OTC	6.7 (6.2–7.2)	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)	—
Total medications	**71.4 (69.9–72.9)**	**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)**	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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), 2005–06 to 2014–15

Medications	Rate per 100 encounters (95% CI)										↑↓ (a)
	2005–06 (*n* = 101,993)	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)	
Prescribed	85.8 (83.3–88.4)	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)	—
GP-supplied	8.8 (8.2–9.5)	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)	§
Advised OTC	9.8 (9.0–10.5)	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)	—
Total medications	**104.4 (101.8–107.0)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: — indicates there was no significant change in 2014–15 compared with 2005–06; § 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), 2005–06 to 2014–15

ATC level 2	Rate per 100 problems (95% CI)										↑↓[a]
	2005–06 (*n* = 149,088)	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)	
Antibacterials for systemic use	10.0 (9.6–10.4)	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)	↓
Analgesics	5.7 (5.4–6.1)	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)	—
Agents acting on the renin-angiotensin system	4.2 (3.9–4.5)	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)	—
Psycholeptics	3.4 (3.2–3.6)	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)	—
Psychoanaleptics	2.3 (2.1–2.4)	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)	↑
Lipid modifying agents	2.3 (2.1–2.4)	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)	↑
Drugs for acid related disorders	2.1 (2.0–2.2)	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)	↑
Drugs for obstructive airway diseases	2.7 (2.5–2.8)	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)	↓
Anti-inflammatory and antirheumatic products	2.7 (2.5–2.8)	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)	↓
Drugs used in diabetes	1.7 (1.5–1.9)	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)	—
Corticosteroids, dermatological preparations	1.7 (1.6–1.8)	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)	—
Sex hormones and modulators of the genital system	2.1 (1.9–2.2)	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)	↓
Antithrombotic agents	1.3 (1.2–1.4)	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)	—

(continued)

Table 9.2a (continued): Prescribed medications by ATC level 2 (rate per 100 problems), 2005–06 to 2014–15

ATC level 2	Rate per 100 problems (95% CI)										↑↓[a]
	2005–06 (*n* = 149,088)	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)	
Corticosteroids for systemic use	0.9 (0.8–1.0)	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)	↑
Beta blocking agents	1.3 (1.2–1.4)	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)	↓
Ophthalmologicals	1.2 (1.1–1.3)	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)	↓
Calcium channel blockers	1.5 (1.4–1.6)	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)	↓
Antiepileptics	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 (0.4–0.5)	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)	↑
Diuretics	1.0 (0.9–1.0)	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)	↓
Thyroid therapy	0.5 (0.4–0.5)	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)	↑
Vaccines	1.7 (1.5–1.9)	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)	↓
Nasal preparations	0.5 (0.4–0.6)	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)	—
Other nervous system drugs	0.4 (0.3–0.5)	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)	—
Drugs for functional gastrointestinal disorders	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 (0.4–0.5)	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)	↓
Otologicals	0.6 (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 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	↓
Total prescribed medications	**58.7 (57.2–60.3)**	**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)**	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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

Table 9.2b: Prescribed medications by ATC level 2 (rate per 100 encounters), 2005–06 to 2014–15

ATC level 2	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
	(*n* = 101,993)	(*n* = 91,805)	(*n* = 95,898)	(*n* = 96,688)	(*n* = 101,349)	(*n* = 95,839)	(*n* = 99,030)	(*n* = 98,564)	(*n* = 95,879)	(*n* = 98,728)	
Antibacterials for systemic use	14.6 (14.0–15.2)	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)	—
Analgesics	8.4 (7.9–8.9)	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)	↑
Agents acting on the renin-angiotensin system	6.1 (5.7–6.5)	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)	—
Psycholeptics	5.0 (4.6–5.3)	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)	—
Psychoanaleptics	3.3 (3.1–3.5)	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)	↑
Lipid modifying agents	3.3 (3.0–3.6)	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)	↑
Drugs for acid related disorders	3.1 (2.9–3.2)	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)	↑
Drugs for obstructive airway diseases	3.9 (3.6–4.1)	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)	—
Anti-inflammatory and antirheumatic products	3.9 (3.7–4.2)	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)	↓
Drugs used in diabetes	2.5 (2.2–2.7)	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)	—
Corticosteroids, dermatological preparations	2.5 (2.4–2.7)	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)	—
Sex hormones and modulators of the genital system	3.0 (2.8–3.2)	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)	↓
Antithrombotic agents	1.9 (1.7–2.1)	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)	—

(continued)

Table 9.2b (continued): Prescribed medications by ATC level 2 (rate per 100 encounters), 2005–06 to 2014–15

ATC level 2	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Corticosteroids for systemic use	1.3 (1.2–1.4)	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)	↑
Beta blocking agents	1.9 (1.8–2.1)	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)	↓
Ophthalmologicals	1.8 (1.7–1.9)	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)	↓
Calcium channel blockers	2.2 (2.0–2.4)	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)	↓
Antiepileptics	0.6 (0.6–0.7)	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)	↑
Diuretics	1.4 (1.3–1.5)	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)	↓
Thyroid therapy	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.7 (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)	↑
Vaccines	2.5 (2.2–2.8)	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)	↓
Nasal preparations	0.8 (0.6–0.9)	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)	—
Other nervous system drugs	0.6 (0.4–0.7)	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)	—
Drugs for functional gastrointestinal disorders	0.8 (0.7–0.9)	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)	—
Otologicals	0.8 (0.8–0.9)	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)	↓
Cardiac therapy	0.9 (0.8–1.0)	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)	↓
Urologicals	0.4 (0.3–0.4)	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)	↑

(continued)

Table 9.2b (continued): Prescribed medications by ATC level 2 (rate per 100 encounters), 2005–06 to 2014–15

ATC level 2	Rate per 100 encounters (95% CI)										↑↓(a)
	2005–06 (*n* = 101,993)	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)	
Antianemic preparations	0.6 (0.6–0.7)	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)	—
Antibiotics and chemotherapeutics for dermatological use	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)	0.5 (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)	↑
Drugs for treatment of bone diseases	0.6 (0.5–0.7)	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)	↓
Antigout preparations	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)	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)	—
Antidiarrheals, intestinal anti-inflammatory/anti-infective agents	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 (0.4–0.6)	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)	↓
Drugs for constipation	0.3 (0.2–0.3)	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)	↑
Total prescribed medications	**85.8 (83.3–88.4)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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

Table 9.3a: Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2005–06 to 2014–15

Generic drug	Rate per 100 problems (95% CI)										↑↓[a]
	2005–06 (*n* = 149,088)	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)	
Amoxycillin	2.4 (2.3–2.6)	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)	↓
Cephalexin	1.7 (1.6–1.9)	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)	—
Paracetamol [plain]	2.1 (1.9–2.3)	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)	↓
Amoxycillin/potassium clavulanate	1.1 (1.0–1.2)	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (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)	↑
Paracetamol/codeine [all]	1.4 (1.3–1.5)	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)	↓
Esomeprazole	0.6 (0.6–0.7)	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)	↑
Oxycodone	0.5 (0.4–0.6)	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)	↑
Atorvastatin	1.1 (1.0–1.2)	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)	↓
Rosuvastatin	N/A	0.0[₸] (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)	↑
Salbutamol	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 (0.8–1.0)	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)	↓
Metformin	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (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)	—
Diazepam	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.7–0.8)	0.6 (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)	—
Perindopril	0.7 (0.6–0.7)	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)	—
Temazepam	0.7 (0.7–0.8)	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)	↓

(continued)

Table 9.3a (continued): Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2005–06 to 2014–15

Generic drug	Rate per 100 problems (95% CI)										↑↓[a]
	2005–06 (*n* = 149,088)	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)	
Warfarin sodium	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)	0.9 (0.8–1.0)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	—
Meloxicam	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (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)	—
Tramadol	0.6 (0.6–0.7)	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)	↓
Roxithromycin	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (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)	↓
Thyroxine	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 (0.4–0.4)	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)	↑
Pantoprazole	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.5 (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)	↑
Levonorgestrel/ ethinyloestradiol	0.7 (0.6–0.7)	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)	↓
Fluticasone/salmeterol	0.6 (0.5–0.7)	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)	↓
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 (0.4–0.5)	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)	—
Doxycycline	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.4 (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)	↓
Pregabalin	0.0[∓] (0.0–0.0)	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)	↑
Irbesartan	0.7 (0.7–0.8)	0.7 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	0.6 (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)	↓
Atenolol	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 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	↓

(continued)

Table 9.3a (continued): Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2005–06 to 2014–15

Generic drug	Rate per 100 problems (95% CI)										↑↓[(a)]
	2005–06 (*n* = 149,088)	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)	
Chloramphenicol eye	0.7 (0.7–0.8)	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)	↓
Ramipril	0.5 (0.5–0.6)	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)	↓
Generic medications frequently prescribed in previous years											
Diclofenac sodium systemic	0.7 (0.6–0.8)	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)	↓
Amnlodipine	0.5 (0.4–0.6)	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 (0.4–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	↓
Irbesartan/ hydrochlorothiazide	0.5 (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)	0.5 (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)	↓
Simvastatin	0.8 (0.7–0.9)	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)	↓
Cefaclor monohydrate	0.5 (0.4–0.7)	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)	↓
Influenza virus vaccine	0.7 (0.6–0.9)	0.4 (0.3–0.5)	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.3 (0.2–0.4)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.1 (0.1–0.2)	↓
Total prescribed medications	**58.7 (57.2–60.3)**	**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)**	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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

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), 2005–06 to 2014–15

Generic drug	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Amoxycillin	3.6 (3.3–3.8)	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)	↓
Cephalexin	2.5 (2.3–2.7)	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)	—
Paracetamol [plain]	3.0 (2.7–3.3)	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)	↓
Amoxycillin/potassium clavulanate	1.6 (1.5–1.8)	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)	↑
Paracetamol/codeine [all]	2.0 (1.8–2.2)	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)	—
Esomeprazole	0.9 (0.8–1.0)	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)	↑
Oxycodone	0.8 (0.7–0.9)	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)	↑
Atorvastatin	1.6 (1.4–1.8)	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)	—
Rosuvastatin	N/A	0.0[ǂ] (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)	↑
Salbutamol	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 (1.2–1.6)	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)	↓
Metformin	1.2 (1.0–1.3)	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)	—
Diazepam	1.1 (1.0–1.2)	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)	—
Perindopril	1.0 (0.9–1.1)	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)	—
Temazepam	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.0 (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)	—

(continued)

Table 9.3b (continued): Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2005–06 to 2014–15

Generic drug	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Warfarin sodium	0.9 (0.8–1.0)	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)	—
Meloxicam	0.9 (0.8–1.0)	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)	—
Tramadol	0.9 (0.9–1.0)	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)	—
Roxithromycin	1.5 (1.3–1.7)	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)	↓
Thyroxine	0.6 (0.6–0.7)	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)	↑
Pantoprazole	0.5 (0.4–0.6)	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)	↑
Levonorgestrel/ ethinyloestradiol	1.0 (0.9–1.1)	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)	↓
Fluticasone/salmeterol	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.8 (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)	↓
Betamethasone topical	0.7 (0.6–0.8)	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)	—
Doxycycline	0.8 (0.7–0.9)	0.7 (0.7–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.6 (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)	—
Pregabalin	0.0[∓] (0.0–0.0)	0.0[∓] (0.0–0.0)	0.0[∓] (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)	↑
Irbesartan	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)	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)	↓
Prednisolone	0.5 (0.4–0.6)	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)	↑
Oxycodone/naloxone	N/A	N/A	N/A	N/A	N/A	0.0[∓] (0.0–0.0)	0.0[∓] (0.0–0.0)	0.2 (0.2–0.3)	0.4 (0.3–0.5)	0.7 (0.6–0.8)	↑

(continued)

Table 9.3b (continued): Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2005–06 to 2014–15

Generic drug	Rate per 100 encounters (95% CI)										↑/↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Atenolol	1.0 (0.9–1.1)	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)	↓
Frusemide	0.6 (0.6–0.7)	0.6 (0.6–0.7)	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)	0.6 (0.5–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.7)	—
Generic medications frequently prescribed in previous years											
Chloramphenicol eye	1.1 (1.0–1.1)	1.0 (0.9–1.1)	0.9 (0.9–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	↓
Ramipril	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)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	↓
Diclofenac sodium systemic	1.0 (0.9–1.1)	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)	↓
Simvastatin	1.2 (1.0–1.3)	1.1 (1.0–1.2)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.6 (0.6–0.7)	0.6 (0.5–0.7)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	↓
Influenza virus vaccine	1.1 (0.8–1.3)	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)	↓
Total prescribed medications	**85.8 (83.3–88.4)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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

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, 2005–06 to 2014–15

Number of repeats	Per cent of prescriptions (95% CI)[a]										↑↓[b]
	2005–06 (*n* = 87,543)	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)	
No repeats	35.9 (34.4–37.5)	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)	—
One repeat	17.6 (16.8–18.4)	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)	↓
Two repeats	10.1 (9.4–10.9)	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)	—
Three or four repeats	4.5 (3.8–5.2)	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)	—
Five repeats	31.7 (30.3–33.1)	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)	↑
Six or more repeats	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 (0.1–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.3)	0.2 (0.1–0.3)	—

(a) Missing data removed.

(b) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

Note: CI – confidence interval.

Table 9.5a: Medications most frequently supplied by GPs (rate per 100 problems), 2005–06 to 2014–15

Generic medication	Rate per 100 problems (95% CI)										↑↓[(a)]
	2005–06 (*n* = 149,088)	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)	
Influenza virus vaccine	1.1 (0.9–1.2)	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)	§
Pneumococcal vaccine	0.6 (0.5–0.7)	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)	↓
Vitamin B12 (cobalamin)	0.2 (0.1–0.2)	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)	↑
Diphtheria/pertussis/ tetanus/hepatitis B/polio/ Haemophilus influenzae B vaccine	0.0Ŧ (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (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)	↑
Rotavirus vaccine	N/A	0.0Ŧ (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)	↑
Mumps/measles/rubella vaccine	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 (0.2–0.3)	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)	↑
Triple antigen (diphtheria/ pertussis/tetanus)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.3 (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)	—
ADT/CDT (diphtheria/ tetanus) vaccine	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)	0.1 (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	0.0Ŧ (0.0–0.1)	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 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	↑
Meloxicam	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)	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.0)	0.0Ŧ (0.0–0.0)	↓
Total GP-supplied medications	**6.0 (5.6–6.5)**	**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)**	↓

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; § indicates a noteworthy change during the decade.

Ŧ 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), 2005–06 to 2014–15

Generic medication	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Influenza virus vaccine	1.6 (1.3–1.8)	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)	§
Pneumococcal vaccine	0.9 (0.8–1.0)	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)	↓
Vitamin B12 (cobalamin)	0.2 (0.2–0.3)	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)	↑
Diphtheria/pertussis/ tetanus/hepatitis B/polio/ Haemophilus influenzae B vaccine	0.1 (0.0–0.1)	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)	↑
Rotavirus vaccine	N/A	0.0[Ŧ] (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)	↑
Mumps/measles/rubella vaccine	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (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)	↑
Triple antigen (diphtheria/ pertussis/tetanus)	0.2 (0.1–0.2)	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)	↑
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 (0.2–0.3)	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)	↓
Diphtheria/pertussis/ tetanus/polio vaccine	0.1 (0.0–0.1)	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)	↑
Human papillomavirus	N/A	N/A	1.0 (0.8–1.1)	0.6 (0.6–0.7)	0.2 (0.2–0.3)	0.0[Ŧ] (0.0–0.1)	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (0.0–0.0)	0.1 (0.0–0.1)	0.0[Ŧ] (0.0–0.0)	↓
Total GP-supplied medications	**8.8 (8.2–9.5)**	**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)**	§

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; § indicates a noteworthy change during the decade.

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

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

Table 9.6a: Most frequently advised over-the-counter medications (rate per 100 problems), 2005–06 to 2014–15

Generic drug	Rate per 100 problems (95% CI) 2005–06 (*n* = 149,088)	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)	↑↓[(a)]
Paracetamol [plain]	1.7 (1.5–1.9)	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)	—
Ibuprofen	0.4 (0.3–0.5)	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)	—
Sodium chloride topical nasal	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 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	↑
Vitamin D3 (cholecalciferol)	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (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)	**↑**
Sodium/potassium/citric acid/glucose	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)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	↑
Loratadine	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)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	—
Diclofenac topical	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 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—
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 (0.1–0.1)	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)	—
Simple analgesics NEC	0.0[Ŧ] (0.0–0.1)	0.0[Ŧ] (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.0[Ŧ] (0.0–0.1)	0.0[Ŧ] (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)	↑
Saline bath/solution/ gargle	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	↑
Total OTC medications	**6.7 (6.2–7.2)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

Ŧ 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; NEC – not elsewhere classified.

Table 9.6b: Most frequently advised over-the-counter medications (rate per 100 encounters), 2005–06 to 2014–15

Generic drug	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
Paracetamol [plain]	2.5 (2.2–2.8)	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)	—
Ibuprofen	0.6 (0.5–0.7)	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)	—
Sodium chloride topical nasal	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	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)	—
Vitamin D3 (cholecalciferol)	0.0Ŧ (0.0–0.0)	0.0Ŧ (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)	↑
Sodium/potassium/citric acid/glucose	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (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)	↑
Loratadine	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)	0.2 (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)	↑
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)	↓
Fexofenadine	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 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	↑
Cetirizine	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (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)	↑
Simple analgesics NEC	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 (0.0–0.1)	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)	↑
Total OTC medications	**9.8 (9.0–10.5)**	**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)**	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

Ŧ 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; 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, 2005–06 to 2014–15. Clinical and procedural treatments are defined in Appendix 4, Tables A4.4 and A4.5.

The survey form allowed GPs to record up to two other treatments for each problem managed at the encounter, and to indicate if each of these was done by a practice nurse (PN) or Aboriginal health worker (AHW). 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 PN or AHW in conjunction with the GP at the encounter.

In Sections 10.1 and 10.2, all 'other treatments' are reported, irrespective of whether they were done by the GP or by the PN/AHW at the encounter. That is, the 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 Medications supplied by GPs.

In Section 10.3, treatments provided by the PN/AHW (including injections given for vaccination) are reported separately, to provide a picture of the work they undertake in association with GP–patient encounters.

In Section 10.4, changes over time in the share of clinical and procedural treatments done by the GP and the PN/AHW, in association with the encounter, are investigated. The procedures analysed in Section 10.4 also include the injections given for immunisations.

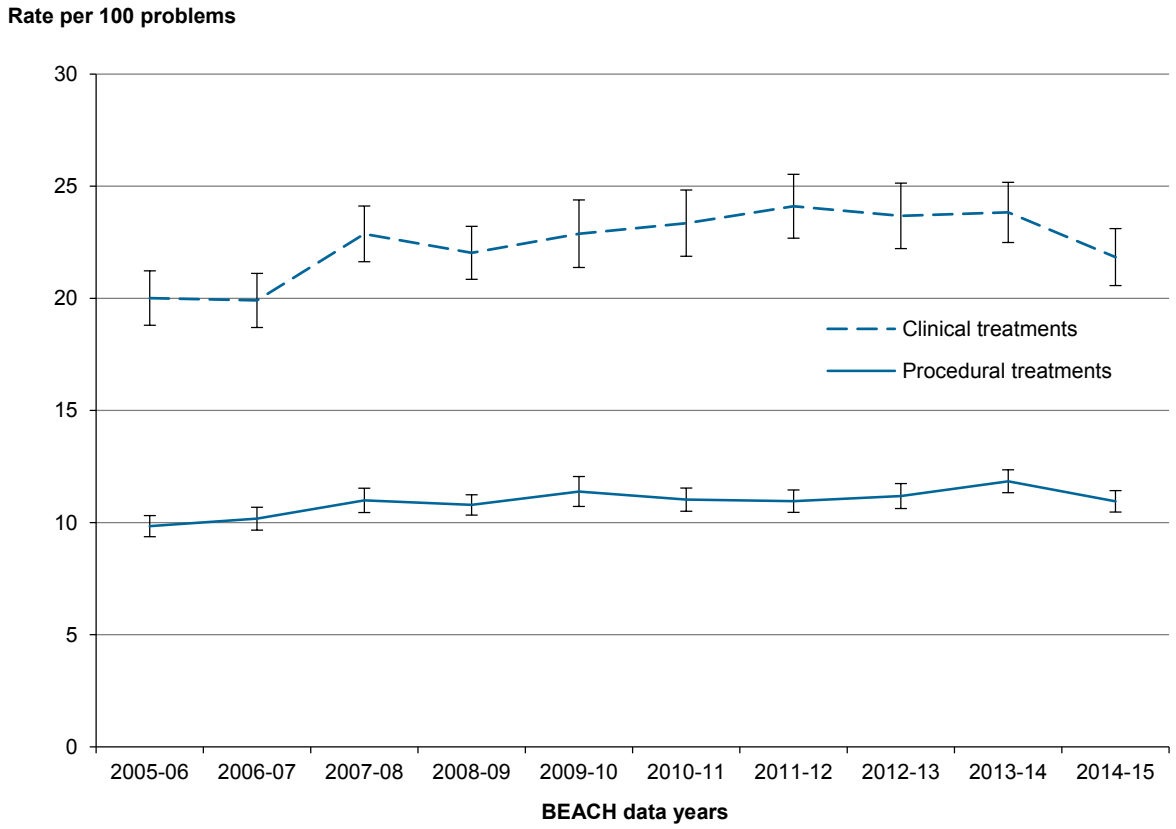
Other treatments data for the 10 years from 2005–06 to 2014–15, are reported in two ways: as rates per 100 problems managed (for example, Table 10.1a) and as rates per 100 encounters (for example, Table 10.1b). In the text describing changes over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase in the number of problems managed per encounter over the study period – this increases the chance of one or more other treatments being given at the encounter.

The direction and type of change from 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) comparing 2014–15 with 2005–06; ↑/↓ indicates a marginally significant change comparing 2014–15 with 2005–06; — indicates there was no significant change across the decade; and § indicates no change comparing 2014–15 with 2005–06 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 2005–06 and 2014–15. 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 2014–15 can be found in Chapter 10 of *General practice activity in Australia 2014–15*.[1]

Figure 10.1 shows that despite a significant increase in the rate at which clinical treatments were provided per 100 problems managed from 2006–07 to 2007–08, the rate has since remained relatively steady; in 2014–15 the clinical treatment rate did not significantly differ from that of 2005–06. In contrast, there was a significant increase in the rate at which procedural treatments were performed over the decade, peaking in 2013–14, but remaining significant in 2014–15.



Note: Data are drawn from Tables 10.1a and 10.3a.

Figure 10.1: Clinical and procedural treatments per 100 problems, 2005–06 to 2014–15 (95% confidence intervals)

10.1 Clinical treatments by GP, practice nurse, or Aboriginal health worker

Between 2006–07 and 2007–08, there was a significant increase in the rate at which clinical treatments were provided by the GP or the PN/AHW at GP–patient encounters, from 19.9 to 22.9 per 100 problems managed. The rate then remained relatively steady, but in 2014–15 clinical treatments were provided at a rate that did not significantly differ from that of 10 years earlier, at 21.8 clinical treatments per 100 problems (Table 10.1a).

- General advice and education was the most frequently recorded clinical treatment throughout the decade, provided at a rate of 3.9 per 100 problems managed in 2014–15. There was no significant change in the rate between 2005–06 and 2014–15.
- The rate at which advice/education about medication, other administrative procedures/documents and counselling/advice about lifestyle were provided all significantly increased over time.
- There was a marginal decrease in the rate at which counselling/advice about nutrition/weight and exercise was provided between 2005–06 and 2014–15. Considering the rise in the prevalence of overweight and obesity among Australian general practice patients (see Section 13.1) it is hoped that the decrease since 2005–06 reflects a shift of this role to PNs, AHWs and/or other allied health professionals.

Although there was no significant change over the decade in the rate at which clinical treatments were provided per 100 problems (Table 10.1a), there was a significant increase in the rate per 100 encounters, from 29.3 per 100 encounters in 2005–06 to 33.9 per 100 in 2014–15 (Table 10.1b). This was due to the increased number of problems managed per encounter over the decade (see Section 7.1). There was also a massive increase in the number of encounters claimed through Medicare due to the increased visit rate (see Table 2.1). The combination of increased number of problems managed at encounters and the increased attendance rate over the study period affects the number of clinical treatments provided nationally. We estimate that as a result, 16.9 million more clinical treatments were provided at GP–patient encounters nationally in 2014–15 than in 2005–06.

For every 100 GP–patient encounters in 2005–06, one or more clinical treatments were provided in the management of 26.7 problems. In 2014–15, this had significantly increased to 30.9 problems per 100 encounters (Table 10.2).

- In 2014–15, upper respiratory tract infection (URTI) was the most common problem managed with clinical treatment and there was no change in the frequency of clinical treatment management of URTI between 2005–06 and 2014–15.
- There was a significant increase in the rate at which clinical treatments were provided in the management of general check-ups (0.3 per 100 encounters in 2005–06 to 0.5 per 100 in 2014–15). Extrapolation of this increase to all Medicare-claimed GP consultation items suggests that there were 380,000 more occasions nationally where clinical treatment was provided at a general check-up in 2014–15 than in 2005–06.
- There were marginal increases in the rates of clinical treatments for diabetes (0.8 per 100 encounters in 2005–06 to 1.0 per 100 in 2014–15) and acute stress reaction (0.4 to 0.5 per 100 encounters). Extrapolation of these increases suggest that across Australia, there were 560,000 more occasions where clinical treatments were provided in the management of diabetes, and 280,000 more occasions for acute stress reaction in 2014–15 compared with a decade earlier.

10.2 Procedures by GP, practice nurse, or Aboriginal health worker

There was a significant increase in the rate at which procedures were performed, from 9.8 per 100 problems in 2005–06 to 10.9 per 100 in 2014–15 (Table 10.3a). The extrapolated effect of this increase, from 14.4 procedures per 100 encounters in 2005–06 to 17.0 per 100 in 2014–15 (Table 10.3b), is that nationally in 2014–15 there were an estimated 8.8 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 2014–15, procedures of this group were provided at a rate of 1.9 per 100 problems managed. There was no significant change in the rate between 2005–06 and 2014–15.
- There was a marginal increase in the rate of dressing/pressure/compression/tamponade, from 1.4 per 100 problems in 2005–06 to 1.6 per 100 in 2014–15 (Table 10.3a). The extrapolated effect of the increase from 2.1 to 2.5 per 100 encounters (Table 10.3b) is that 1.3 million more procedures classified as dressing/pressure/compression/tamponade were provided in general practice nationally in 2014–15 than a decade earlier.

For every 100 GP–patient encounters in 2005–06, one or more procedures were used in the management of 13.5 problems. By 2014–15, this had significantly increased to 16.0 problems per 100 encounters (Table 10.4). Extrapolation of this result suggests that across Australia, about 8.3 million more problems were managed with a procedure in 2014–15 than a decade earlier.

- In 2014–15, solar keratosis/sunburn was the most common problem managed with a procedural treatment (0.8 per 100 encounters). There was no significant change in the rate between 2005–06 and 2014–15.
- Over the decade, there were significant increases in the rate at which one or more procedures were undertaken for the management of general check-ups (from 0.2 per 100 encounters in 2005–06 to 0.5 per 100 in 2014–15) and atrial fibrillation/flutter (0.1 to 0.4 per 100 encounters). Extrapolation of these increases suggest that across Australia, there were 480,000 more occasions where a procedure was undertaken for a general check-up, and 450,000 more occasions for the management of atrial fibrillation/flutter in 2014–15 compared with a decade earlier.

Table 10.1a: The most frequent clinical treatments (rate per 100 problems), 2005–06 to 2014–15

Treatment	Rate per 100 problems (95% CI)										↑↓[(a)]
	2005–06 (*n* = 149,088)	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)	
Advice/education NEC*	3.3 (2.8–3.7)	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)	—
Counselling – problem*	3.3 (2.8–3.7)	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)	—
Advice/education – treatment*	2.1 (1.8–2.4)	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)	—
Counselling – psychological*	2.1 (1.9–2.3)	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)	—
Counselling/advice – nutrition/weight*	2.5 (2.2–2.7)	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)	↓
Advice/education – medication*	1.1 (1.0–1.2)	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)	↑
Other administrative procedure/document (excl. sickness certificate)*	0.7 (0.6–0.8)	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)	↑
Sickness certificate*	1.1 (0.9–1.3)	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)	—
Reassurance, support*	0.7 (0.6–0.8)	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)	↑
Counselling/advice – lifestyle*	0.3 (0.2–0.4)	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)	↑
Counselling/advice – exercise*	0.7 (0.6–0.9)	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)	↓
Counselling/advice – smoking*	0.4 (0.3–0.4)	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)	—
Total clinical treatments	**20.0 (18.8–21.2)**	**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)**	§

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.4, <hdl.handle.net/2123/13765>)

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), 2005–06 to 2014–15

Treatment	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
	(*n* = 101,993)	(*n* = 91,805)	(*n* = 95,898)	(*n* = 96,688)	(*n* = 101,349)	(*n* = 95,839)	(*n* = 99,030)	(*n* = 98,564)	(*n* = 95,879)	(*n* = 98,728)	
Advice/education NEC*	4.8 (4.1–5.4)	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)	—
Counselling – problem*	4.8 (4.1–5.4)	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)	—
Advice/education – treatment*	3.1 (2.6–3.5)	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)	—
Counselling – psychological*	3.0 (2.8–3.3)	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)	—
Counselling/advice – nutrition/weight*	3.6 (3.2–4.0)	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)	—
Advice/education – medication*	1.6 (1.4–1.7)	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)	↑
Other administrative procedure/document (excl. sickness certificate)*	1.0 (0.9–1.2)	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)	↑
Sickness certificate*	1.6 (1.4–1.9)	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)	—
Reassurance, support*	1.0 (0.8–1.2)	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)	↑
Counselling/advice – lifestyle*	0.5 (0.3–0.6)	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)	↑
Counselling/advice – exercise*	1.1 (0.9–1.2)	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)	—
Counselling/advice – smoking*	0.5 (0.4–0.6)	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)	—

(continued)

Table 10.1b (continued): The most frequent clinical treatments (rate per 100 encounters), 2005–06 to 2014–15

Treatment	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Counselling/advice – health/body*	0.1 (0.1–0.2)	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)	↑
Counselling/advice – prevention*	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.4 (0.3–0.5)	0.6 (0.4–0.7)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	↑
Total clinical treatments	**29.3 (27.4–31.1)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.4, <hdl.handle.net/2123/13765>)

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, 2005–06 to 2014–15

Problem managed	Rate at which a selected problem was managed with one or more clinical treatments, per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Upper respiratory tract infection	1.6 (1.3–1.8)	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)	—
Depression*	1.6 (1.5–1.8)	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)	—
Diabetes – all*	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	1.1 (0.9–1.2)	1.0 (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)	↑
Anxiety*	0.8 (0.7–0.9)	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)	—
Hypertension*	1.0 (0.9–1.2)	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)	—
Lipid disorder	0.8 (0.7–0.9)	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)	—
Gastroenteritis*	0.7 (0.6–0.7)	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)	—
Back complaint*	0.5 (0.4–0.6)	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)	—
Acute stress reaction	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 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	↑
Test results*	0.5 (0.3–0.6)	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)	—
General check-up*	0.3 (0.2–0.3)	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 (0.4–0.6)	0.5 (0.4–0.6)	↑
Osteoarthritis*	0.3 (0.3–0.4)	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)	↑
Administrative procedure – all*	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	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)	↑
Viral disease, other/NOS	0.4 (0.3–0.5)	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)	—

(continued)

Table 10.2 (continued): The most common problems managed with clinical treatments, 2005–06 to 2014–15

Problem managed	Rate at which a selected problem was managed with one or more clinical treatments, per 100 encounters (95% CI)										↑↓(a)
	2005–06 (*n* = 101,993)	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)	
Asthma	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 (0.4–0.5)	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)	—
Obesity (BMI > 30)	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 (0.3–0.5)	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)	—
Tobacco abuse	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (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)	↑
Total problems with clinical treatments	**26.7 (25.1–28.3)**	**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)**	**↑**

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/13765>).

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), 2005–06 to 2014–15

Treatment	Rate per 100 problems (95% CI) 2005–06 (*n* = 149,088)	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)	↑/↓[(a)]
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	1.9 (1.8–2.1)	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)	—
Dressing/pressure/ compression/tamponade*	1.4 (1.3–1.5)	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)	↑
Local injection/ infiltration*[(b)]	1.3 (1.2–1.5)	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)	—
Physical medicine/ rehabilitation – all*	0.9 (0.8–1.1)	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)	—
Incision/drainage/ flushing/aspiration/ removal body fluid*	0.9 (0.8–1.0)	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)	↓
Pap smear*	0.7 (0.6–0.7)	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)	↓
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	0.7 (0.6–0.7)	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)	↓
Other therapeutic procedures/minor surgery*	0.6 (0.6–0.7)	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)	—
INR test*	N/A	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)	↑
Electrical tracings*	0.3 (0.2–0.3)	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)	↑
Total procedural treatments	**9.8 (9.4–10.3)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Tables A4.5 and A4.6, <hdl.handle.net/2123/13765>).

Note: CI – confidence interval; INR – international normalised ratio; N/A – not applicable; PN – practice nurse; AHW – Aboriginal health worker.

Table 10.3b: The most frequent procedural treatments (rate per 100 encounters), 2005–06 to 2014–15

Treatment	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	2.8 (2.6–3.1)	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)	—
Dressing/pressure/ compression/tamponade*	2.1 (1.9–2.3)	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)	↑
Local injection/ infiltration*[(b)]	2.0 (1.8–2.2)	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)	↑
Physical medicine/ rehabilitation – all*	1.4 (1.1–1.6)	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)	—
Incision/drainage/flushing/ aspiration/removal body fluid*	1.3 (1.2–1.4)	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)	↓
Pap smear*	1.0 (0.8–1.1)	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)	—
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	1.0 (0.9–1.1)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (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)	↓
Other therapeutic procedures/minor surgery*	0.9 (0.8–1.1)	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)	—
INR test*	N/A	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)	↑
Check-up – PN/AHW*	N/A	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 (0.4–0.8)	0.6 (0.4–0.7)	0.7 (0.5–0.8)	0.7 (0.5–0.8)	0.7 (0.5–0.8)	↑
Electrical tracings*	0.4 (0.3–0.5)	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)	↑
Other preventive procedures/high-risk medication*	0.2 (0.1–0.2)	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)	↑

(continued)

Table 10.3b (continued): The most frequent procedural treatments (rate per 100 encounters), 2005–06 to 2014–15

Treatment	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Physical function test*	0.4 (0.3–0.5)	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (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)	—
Total procedural treatments	**14.4 (13.7–15.1)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

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

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Tables A4.5 and A4.6, <hdl.handle.net/2123/13765>).

Note: CI – confidence interval; INR – international normalised ratio; N/A – not applicable; PN – practice nurse; AHW – Aboriginal health worker.

Table 10.4: The most common problems managed with procedural treatments, 2005–06 to 2014–15

Problem managed	Rate at which a selected problem was managed with one or more procedural treatments, per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Solar keratosis/sunburn	0.9 (0.8–1.0)	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)	—
Laceration/cut	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	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)	—
Female genital check-up/ Pap smear*	0.8 (0.7–0.9)	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)	—
Excessive ear wax	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	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)	—
Malignant neoplasm, skin	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.6 (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)	↑
General check-up*	0.2 (0.1–0.2)	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)	↑
Warts	0.5 (0.5–0.6)	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)	↑
Chronic ulcer skin (including varicose ulcer)	0.4 (0.4–0.5)	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)	—
Atrial fibrillation/flutter	0.1 (0.0–0.1)	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)	↑
Total problems with procedures	**13.5 (12.9–14.2)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/13765>)

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.

10.3 Practice nurse/Aboriginal health worker activity

This section describes changes over the decade in the activities of practice nurses (PNs) and Aboriginal health workers (AHWs) that were recorded in association with the GP–patient encounters detailed by the BEACH GP participants.

In 2004, four Medicare item numbers were introduced into the MBS that allowed GPs to claim for specified tasks done by a PN under the direction of the GP.[46] In 2005–06, the BEACH recording form was amended to capture this information. For the past decade GPs have been able to record up to three Medicare item numbers where appropriate.

In the 'other treatments' section for each problem managed, GPs were asked to tick the 'practice nurse' box if the treatment recorded was provided by the PN or AHW rather than by the GP. If the box was not ticked, it was assumed the GP gave the treatment. Other treatments include all clinical and procedural treatments provided at the encounters. These groups are defined in Appendix 4, Tables A4.4 and A4.5.

Over the years, new PN item numbers were added and some items were broadened to cover work done by AHWs. In January 2012, the Australian Government significantly altered the payment structure for practice nurse and AHW activities in general practice, such that the range of claimable MBS item numbers was reduced and the Practice Nurse Incentive Program (PNIP) introduced. Most of the MBS PN/AHW items were removed and the funds redirected into a single payment to eligible general practices.[47]

The following section investigates: the proportion of encounters involving the PN/AHW; the proportion of encounters claimable with a Medicare item number; the distribution of the PN/AHW items recorded; treatments provided by PNs/AHWs in association with the GP encounters; the problems for which these treatments were provided.

These results do not include PN/AHW activities undertaken during the GP's BEACH recording period that were not associated with the recorded encounter. Such activities could include Medicare-claimable activities (for example, chronic disease management) provided under instruction from the GP but not at the time of the encounter recorded in BEACH, or provision of other services not claimable from Medicare (for example, dietary advice on a one-to-one basis or in a group situation).

Overview of practice nurse/Aboriginal health worker activity

Encounters involving a PN/AHW as a proportion of all encounters more than doubled from 4.2% in 2005–06 to peak at 9.0% in 2009–10. Since then, PN/AHW involvement in GP–patient encounters has significantly decreased, with 7.2% of encounters in 2014–15 involving a PN/AHW (Table 10.5).

Following a similar pattern of change, the proportion of problems managed with PN/AHW involvement at GP–patient encounters increased significantly from 2.8% in 2005–06 to 6.1% in 2009–10, and then gradually decreased to reach 4.8% in 2014–15.

In 2005–06, GPs recorded one or more PN/AHW MBS item numbers at 39.2% of encounters with recorded PN/AHW activity. By 2009–10, this had risen to 45.5%. In 2011–12, a data year that included 3 months of the new 2012 PNIP, GPs recorded a PN/AHW item at only 27.4% of encounters involving a PN/AHW. In 2014–15, PN/AHW activities were claimable from Medicare at only 3.8% of encounters with which they were associated.

When this result is considered in terms of the total GP–patient encounters recorded in BEACH, a PN/AHW Medicare item number was claimable at 4.1% of all GP encounters in 2009–10 but only 0.3% in 2014–15 (Table 10.5).

Treatments provided by practice nurses and Aboriginal health workers

The rate at which procedures (including injections and tests) were undertaken by PNs/AHWs in association with the recorded GP–patient encounters more than doubled from 4.0 per 100 encounters in 2005–06 to 9.2 per 100 in 2009–10. The rate then decreased in 2011–12, to 7.2 per 100 encounters, with no further significant change in the ensuing years.

While the provision of clinical treatments (such as advice and health education) by PNs/AHWs remained infrequent at GP–patient encounters, there was a steady increase over the study period, from 0.2 clinical treatments per 100 encounters in 2005–06 to 1.1 per 100 in 2012–13 and then remaining steady through to 2014–15 (Table 10.6).

Individual treatments

Through all years, where the PN/AHW provided a treatment associated with a GP–patient encounter, only one action was usually recorded. However, there was a small (statistically significant) increase in the number of treatments provided, from 107.4 per 100 PN/AHW-involved encounters in 2005–06, to 111.1 per 100 in 2014–15 (Table 10.7).

Procedures: the rate at which PNs/AHWs provided local injections/infiltration at GP encounters was at its peak in 2009–10 (50.3 per 100 encounters in which PNs/AHWs were involved). With the removal of the MBS item number for PN/AHW provision of injections in early 2012, the rate immediately decreased and was 30.9 per 100 in 2014–15.

In 2014–15, check-ups were conducted by PNs/AHWs at a rate of 9.3 per 100 GP–patient encounters in which they were involved, more than double that of 2006–07. International normalised ratio (INR) blood testing frequency more than tripled, from 1.8 per 100 PN/AHW involved encounters in 2006–07 to 7.2 per 100 in 2014–15, but the results for each of the last 4 years did not differ, suggesting a levelling out of the frequency of INR testing by PNs/AHWs associated with GP–patient encounters.

Clinical treatments: PN/AHW carried out administrative procedures (excluding sickness certificates) in association with the GP–patient encounters at an ever-increasing rate, rising from 0.7 per 100 PN/AHW-involved encounters in 2005–06 to 5.8 per 100 in 2012–13, and did not change significantly in 2013–14 and 2014–15. Increases also occurred in their provision of advice/education about treatment, and about medication (Table 10.7).

Problems managed with PN/AHW involvement at encounters

Changes in the problems for which PNs/AHWs were involved in management are shown in Table 10.8 and largely reflect the changes in the activities undertaken. Their assistance in the management of immunisation/vaccination at GP encounters significantly decreased from 30.9 per 100 PN/AHW-involved encounters in 2005–06 to 18.8 per 100 in 2014–15. There were significant increases in the rate at which they were involved in the management of check-ups, diabetes, atrial fibrillation/flutter, and vitamin/nutritional deficiency. Some of these increases may well have been stimulated by the introduction of MBS item 10997 for services provided by a PN/AHW to a person with a chronic disease in 2007–08. Their involvement with problems labelled as ‘administrative procedure’ increased over the decade, but has remained steady for the past 3 years (Table 10.8).

Table 10.5: Summary of PN and AHW involvement at encounter and claims made, 2005–06 to 2014–15

Variable	Number										↑↓(a)
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Total encounters	101,993	91,805	95,898	96,688	101,349	95,839	99,030	98,564	95,879	98,728	. .
Encounters involving PN or AHW	4,295	4,769	5,791	6,183	9,154	7,625	7,293	7,318	7,690	7,075	. .
Encounters at which PN activity described	4,013	4,710	5,712	6,052	8,999	7,432	7,210	7,234	7,615	7,018	. .
Encounters with PN item number but activity not described	282	59	79	131	155	195	82	84	75	58	. .
Encounters at which one or more MBS PN item numbers were recorded as claimable	1,683	1,823	2,060	2,416	4,161	3,068	1,997	287	386	270	. .
Total problems managed	149,088	136,333	145,078	149,462	155,373	146,141	152,286	152,517	151,675	153,133	. .
Problems managed with PN involvement	4,111	4,922	5,909	6,281	9,542	7,826	7,554	7,607	8,041	7,324	. .
	Per cent (95% CI)										
Encounters involving the PN/AHW as a proportion of total encounters	4.2 (3.7–4.7)	5.2 (4.6–5.8)	6.0 (5.5–6.6)	6.4 (5.8–7.0)	9.0 (8.2–9.9)	8.0 (7.3–8.7)	7.4 (6.7–8.0)	7.4 (6.8–8.0)	8.0 (7.3–8.7)	7.2 (6.6–7.7)	↑
Problems involving the PN/AHW as a proportion of total problems	2.8 (2.4–3.1)	3.6 (3.2–4.1)	4.1 (3.7–4.5)	4.2 (3.8–4.6)	6.1 (5.6–6.7)	5.4 (4.9–5.8)	5.0 (4.5–5.4)	5.0 (4.6–5.4)	5.3 (4.9–5.8)	4.8 (4.4–5.2)	↑
PN/AHW-claimable encounters as a proportion of total encounters	1.7 (1.4–1.9)	2.0 (1.7–2.3)	2.1 (1.9–2.4)	2.5 (2.2–2.8)	4.1 (3.6–4.1)	3.2 (2.8–3.6)	2.0 (1.7–2.3)	0.3 (0.1–0.5)	0.4 (0.3–0.5)	0.3 (0.2–0.4)	§
Proportion of PN/AHW-involved encounters for which one or more MBS PN item numbers were recorded	39.2 (34.7–43.6)	38.2 (34.0–42.4)	35.6 (32.4–38.8)	39.1 (35.9–42.3)	45.5 (42.1–48.8)	40.2 (36.9–43.6)	27.4 (24.3–30.4)	3.9 (1.7–6.1)	5.0 (3.4–6.7)	3.8 (2.7–5.0)	§

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and § indicates a noteworthy change during the decade.

Note: PN/AHW – practice nurse or Aboriginal health worker; CI – confidence interval; MBS – Medicare Benefits Schedule. Some of these results may differ from those previously published, because these data were re-analysed for all years to include in the count of PN/AHW activity those encounters at which an item number was recorded but no PN activity was described.

Table 10.6: Summary of treatments provided by PNs or AHWs, 2005–06 to 2014–15

Treatment	Rate per 100 encounters (95% CI) 2005–06 (*n* = 101,993)	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)	↑↓[(a)]
Procedural treatments[(b)]	4.0 (3.5–4.5)	5.2 (4.6–5.8)	6.1 (5.5–6.7)	6.4 (5.8–7.1)	9.2 (8.3–10.2)	8.0 (7.3–8.8)	7.2 (6.6–7.9)	7.2 (6.5–7.8)	7.8 (7.1–8.5)	6.9 (6.3–7.5)	↑
Clinical treatments	0.2 (0.1–0.3)	0.5 (0.3–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.7 (0.5–0.9)	0.7 (0.6–0.9)	0.9 0.7–1.1)	1.1 (1.0–1.3)	1.1 (0.9–1.3)	1.0 (0.8–1.2)	↑
All other treatments	**4.2 (3.7–4.8)**	**5.7 (4.9–6.4)**	**6.5 (5.9–7.2)**	**6.9 (6.2–7.6)**	**9.9 (8.9–10.9)**	**8.7 (7.9–9.6)**	**8.1 (7.4–8.9)**	**8.3 (7.6–9.0)**	**8.9 (8.1–9.8)**	**7.9 (7.2–8.6)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06.

(b) Procedural treatments here include all injections for immunisations/vaccinations. These are not included in the summary of the content of encounter in Table 5.1, summary of management in Table 8.1 or in the analyses of other treatments in Chapter 10, because the immunisation/vaccination is already counted as a prescription or GP-supplied medication.

Note: CI – confidence interval; PN/AHW – practice nurse or Aboriginal health worker.

Table 10.7: Most frequent treatments done by PNs or AHWs, 2005–06 to 2014–15

Treatment	Rate per 100 encounters where PN/AHW activity described (95% CI) 2005–06 (*n* = 4,013)	2006–07 (*n* = 4,710)	2007–08 (*n* = 5,712)	2008–09 (*n* = 6,052)	2009–10 (*n* = 8,999)	2010–11 (*n* = 7,625)	2011–12 (*n* = 7,210)	2012–13 (*n* = 7,234)	2013–14 (*n* = 7,615)	2014–15 (*n* = 7,018)	↑↓[(a)]
Procedural treatments (including tests)	102.2 (100.1–104.3)	101.3 (99.2–103.5)	102.3 (100.7–104.0)	102.5 (100.5–104.5)	104.1 (102.4–105.9)	103.5 (101.6–105.4)	99.3 (96.5–102.0)	97.6 (95.7–99.5)	98.5 (96.1–100.9)	97.3 (95.2–99.5)	↓
Local injection/infiltration*	41.0 (36.6–45.4)	37.3 (33.0–41.6)	37.7 (34.7–40.7)	38.2 (34.9–41.6)	50.3 (47.0–53.6)	41.1 (37.7–44.5)	35.5 (32.4–38.6)	33.0 (30.2–35.9)	34.0 (31.0–37.1)	30.9 (28.4–33.4)	↓
Dressing/pressure/ compression/tamponade*	23.7 (21.3–26.2)	22.4 (19.8–24.9)	20.7 (18.7–22.8)	21.2 (19.2–23.2)	15.8 (14.2–17.5)	19.5 (17.8–21.2)	20.0 (18.2–21.8)	18.3 (16.4–20.2)	19.6 (17.8–21.5)	19.7 (17.9–21.6)	—
Check-up – PN/AHW*	NAv	4.0 (2.3–5.6)	6.1 (4.8–7.4)	6.3 (4.0–8.6)	7.6 (4.0–11.1)	7.3 (5.2–9.5)	8.0 (6.1–9.8)	8.9 (7.6–10.3)	8.3 (6.2–10.3)	9.3 (7.0–11.6)	↑
INR test*	NAv	1.8 (1.0–2.6)	4.9 (3.6–6.2)	6.4 (4.9–7.9)	4.5 (3.5–5.5)	6.8 (5.5–8.1)	6.6 (5.4–7.8)	7.2 (5.9–8.5)	7.5 (6.2–8.8)	7.2 (6.1–8.4)	↑

(continued)

Table 10.7 (continued): Most frequent treatments done by PNs or AHWs, 2005–06 to 2014–15

Treatment	Rate per 100 encounters where PN/AHW activity described (95% CI)										↑↓[(a)]
	2005–06 (*n* = 4,013)	2006–07 (*n* = 4,710)	2007–08 (*n* = 5,712)	2008–09 (*n* = 6,052)	2009–10 (*n* = 8,999)	2010–11 (*n* = 7,625)	2011–12 (*n* = 7,210)	2012–13 (*n* = 7,234)	2013–14 (*n* = 7,615)	2014–15 (*n* = 7,018)	
Incision/drainage/flushing/ aspiration/removal body fluid*	8.1 (6.2–10.0)	8.8 (6.7–11.0)	6.8 (5.6–7.9)	7.4 (6.0–8.8)	6.8 (5.4–8.1)	5.7 (4.7–6.7)	5.5 (4.2–6.7)	5.9 (4.5–7.2)	5.5 (4.6–6.3)	5.9 (4.9–6.8)	—
Electrical tracings*	5.4 (4.1–6.7)	4.5 (3.7–5.2)	5.2 (4.3–6.1)	4.4 (3.6–5.2)	3.6 (3.1–4.2)	4.3 (3.7–5.0)	5.2 (4.5–6.0)	4.6 (3.9–5.2)	5.8 (4.8–6.9)	5.2 (4.4–6.0)	—
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	6.4 (5.0–7.8)	6.0 (5.0–7.0)	5.0 (4.2–5.7)	4.3 (3.6–5.0)	4.0 (3.3–4.6)	4.4 (3.6–5.1)	4.0 (3.3–4.6)	4.9 (4.2–5.6)	4.4 (3.7–5.2)	4.7 (4.0–5.3)	—
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	6.4 (5.0–7.8)	6.0 (5.0–7.0)	5.0 (4.2–5.7)	4.3 (3.6–5.0)	4.0 (3.3–4.6)	4.4 (3.6–5.1)	4.0 (3.3–4.6)	4.9 (4.2–5.6)	4.4 (3.7–5.2)	4.7 (4.0–5.3)	—
Physical function test*	3.9 (2.6–5.3)	4.3 (2.8–5.7)	3.5 (2.3–4.7)	2.7 (2.0–3.4)	2.9 (2.1–3.6)	2.6 (2.0–3.3)	2.8 (2.1–3.5)	2.6 (2.0–3.1)	2.9 (2.3–3.6)	3.0 (2.2–3.7)	—
Other therapeutic procedures*	1.4 (0.9–1.9)	1.2 (0.8–1.6)	1.6 (1.1–2.1)	1.4 (0.8–2.1)	1.1 (0.8–1.5)	1.1 (0.7–1.5)	1.4 (0.9–1.9)	1.5 (1.0–2.1)	1.0 (0.7–1.3)	1.3 (0.9–1.7)	—
Urine test*	1.4 (0.8–2.0)	1.4 (0.8–2.0)	2.1 (1.3–3.0)	1.7 (1.0–2.4)	1.3 (0.8–1.8)	2.3 (1.6–3.0)	2.1 (1.5–2.8)	2.3 (1.6–3.0)	1.5 (1.0–2.0)	1.2 (0.9–1.6)	—
Other diagnostic procedures*	0.9 (0.3–1.4)	1.4 (0.0–2.9)	0.5 (0.3–0.7)	0.5 (0.2–0.8)	0.7 (0.4–1.0)	1.3 (0.2–2.3)	0.8 (0.4–1.2)	0.8 (0.6–1.1)	1.0 (0.6–1.4)	1.0 (0.7–1.4)	—
Glucose test*	0.7 (0.3–1.1)	1.0 (0.4–1.5)	1.0 (0.7–1.3)	1.0 (0.6–1.3)	0.6 (0.4–0.8)	1.5 (0.7–2.3)	1.2 (0.8–1.7)	1.2 (0.7–1.6)	0.7 (0.4–1.0)	0.8 (0.5–1.2)	—
Pap smear*	0.3 (0.0–0.6)	0.6 (0.2–0.9)	0.5 (0.3–0.8)	0.7 (0.1–1.3)	0.7 (0.4–0.9)	0.9 (0.5–1.2)	0.6 (0.3–0.9)	0.5 (0.2–0.7)	0.6 (0.3–1.0)	0.6 (0.3–0.8)	—

(continued)

Table 10.7 (continued): Most frequent treatments done by PNs or AHWs, 2005–06 to 2014–15

Treatment	Rate per 100 encounters where PN/AHW activity described (95% CI)										↑↓[(a)]
	2005–06 (*n* = 4,013)	2006–07 (*n* = 4,710)	2007–08 (*n* = 5,712)	2008–09 (*n* = 6,052)	2009–10 (*n* = 8,999)	2010–11 (*n* = 7,625)	2011–12 (*n* = 7,210)	2012–13 (*n* = 7,234)	2013–14 (*n* = 7,615)	2014–15 (*n* = 7,018)	
Clinical treatments	5.2 (3.7–6.7)	8.9 (5.6–12.1)	7.7 (6.2–9.2)	7.4 (6.0–8.8)	7.9 (5.9–9.9)	9.3 (7.6–11.1)	12.2 (9.6–14.8)	15.6 (13.3–17.9)	14.0 (11.6–16.4)	13.8 (11.8–15.8)	↑
Other administrative procedure/document (excluding sickness certificate)*	0.7 (0.4–1.1)	1.2 (0.7–1.7)	2.0 (1.4–2.6)	2.4 (1.7–3.1)	2.4 (1.6–3.1)	2.3 (1.7–2.9)	3.7 (2.9–4.5)	5.8 (4.6–7.0)	4.7 (3.6–5.9)	4.7 (3.7–5.6)	↑
Advice/education NEC*	0.9 (0.4–1.3)	1.5 (0.6–2.4)	1.4 (0.8–2.1)	0.8 (0.5–1.1)	1.2 (0.6–1.9)	1.0 (0.5–1.4)	1.1 (0.7–1.5)	1.2 (0.7–1.6)	1.0 (0.7–1.3)	1.3 (0.8–1.9)	—
Advice/education – treatment*	0.2 (0.1–0.4)	0.9 (0.5–1.3)	0.6 (0.4–0.8)	0.9 (0.5–1.3)	0.4 (0.2–0.6)	0.5 (0.3–0.7)	0.9 (0.6–1.2)	1.2 (0.7–1.7)	1.0 (0.6–1.3)	1.3 (0.9–1.7)	↑
Counselling – problem*	0.9 (0.2–1.5)	0.8 (0.3–1.3)	0.6 (0.3–0.8)	0.5 (0.2–0.7)	0.6 (0.3–0.9)	1.2 (0.6–1.8)	1.8 (0.1–3.4)	1.1 (0.7–1.5)	1.2 (0.8–1.6)	1.1 (0.6–1.6)	—
Counselling/advice – nutrition/weight*	0.6 (0.2–0.9)	1.2 (0.2–2.1)	0.5 (0.1–0.9)	0.7 (0.4–1.1)	0.6 (0.3–0.8)	0.6 (0.4–0.8)	0.4 (0.2–0.6)	1.4 (0.8–2.0)	1.4 (0.7–2.1)	1.0 (0.4–1.7)	—
Advice/education – medication*	0.2 (0.0–0.3)	0.3 (0.1–0.5)	0.4 (0.2–0.7)	0.2 (0.0–0.4)	0.4 (0.2–0.6)	0.5 (0.3–0.8)	0.7 (0.4–1.1)	1.3 (0.9–1.7)	1.1 (0.5–1.8)	0.7 (0.4–1.0)	↑
Consultation with primary care provider*	0	0.2 (0.0–0.3)	0.4 (0.2–0.7)	0.1 (0.0–0.2)	0.4 (0.2–0.6)	0.7 (0.4–1.0)	0.6 (0.3–0.8)	1.0 (0.7–1.4)	0.7 (0.4–1.1)	0.7 (0.4–0.9)	↑
Total PN/AHW activities at GP–patient encounters	**107.4 (105.0–108.9)**	**110.2 (107.7–112.8)**	**110.0 (108.4–111.6)**	**109.9 (108.1–111.6)**	**112.0 (110.3–113.7)**	**112.8 (110.9–114.7)**	**110.5 (110.1–112.9)**	**113.2 (111.7–114.7)**	**112.5 (110.7–114.4)**	**111.1 (109.6–112.6)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/13765>).

Note: PN/AHW – practice nurse or Aboriginal health worker; includes only those activities done by PNs/AHWs at a rate of 0.5 or more per 100 encounters involving a PN/AHW in any of the years reported. CI – confidence interval; NAv – not available; NEC – not elsewhere classified; PN – practice nurse; AHW – Aboriginal health worker; INR – international normalised ratio.

Table 10.8: The 20 most common problems managed with involvement of PN or AHW, 2005–06 to 2014–15

Treatment	Rate per 100 encounters where PN/AHW activity described (95% CI)										↑↓[(a)]
	2005–06 (*n* = 4,013)	2006–07 (*n* = 4,710)	2007–08 (*n* = 5,712)	2008–09 (*n* = 6,052)	2009–10 (*n* = 8,999)	2010–11 (*n* = 7,625)	2011–12 (*n* = 7,210)	2012–13 (*n* = 7,234)	2013–14 (*n* = 7,615)	2014–15 (*n* = 7,018)	
Immunisation/vaccination – all*	30.9 (26.9–34.9)	30.8 (26.5–35.0)	29.5 (26.7–32.2)	29.5 (26.2–32.7)	40.6 (37.3–43.9)	30.7 (27.3–34.0)	25.5 (22.7–28.3)	23.1 (20.4–25.8)	22.8 (19.8–25.7)	18.8 (16.8–20.9)	↓
Check-up – all*	3.8 (2.8–4.8)	4.4 (3.4–5.4)	5.2 (4.0–6.4)	5.1 (3.9–6.2)	5.5 (4.6–6.3)	5.0 (4.1–5.9)	5.8 (4.9–6.8)	6.9 (5.9–7.8)	6.2 (5.4–7.0)	7.2 (6.3–8.2)	↑
Laceration/cut	6.4 (5.0–7.8)	6.2 (5.2–7.2)	6.0 (5.0–7.0)	6.4 (5.5–7.3)	4.5 (3.8–5.1)	6.0 (5.1–6.8)	5.9 (5.1–6.7)	6.3 (5.4–7.2)	5.9 (5.2–6.7)	7.0 (6.1–8.0)	—
Diabetes – all*	1.5 (0.8–2.1)	2.0 (1.4–2.6)	2.9 (2.2–3.5)	3.1 (2.4–3.7)	2.0 (1.5–2.4)	3.5 (2.6–4.3)	3.9 (3.2–4.7)	4.6 (3.8–5.4)	4.4 (3.5–5.3)	4.6 (3.7–5.4)	↑
Chronic ulcer skin (including varicose ulcer)	7.1 (5.9–8.3)	6.5 (5.3–7.7)	4.8 (3.9–5.7)	5.9 (4.9–6.9)	4.0 (3.3–4.8)	4.4 (3.7–5.1)	4.9 (4.1–5.6)	4.2 (3.5–4.9)	4.2 (3.5–4.9)	4.4 (3.7–5.1)	↓
Atrial fibrillation/flutter	1.2 (0.6–1.7)	1.4 (0.8–2.0)	2.8 (2.0–3.6)	3.4 (2.6–4.3)	2.5 (1.8–3.2)	3.6 (2.8–4.4)	3.6 (2.5–4.6)	4.2 (3.2–5.1)	4.4 (3.6–5.2)	3.8 (3.0–4.6)	↑
Excessive ear wax	2.2 (1.6–2.9)	3.0 (2.4–3.6)	2.8 (2.2–3.4)	2.5 (2.0–3.0)	2.0 (1.5–2.4)	2.3 (1.9–2.7)	2.3 (1.8–2.7)	2.6 (2.1–3.1)	2.8 (2.3–3.3)	3.4 (2.8–3.9)	—
Malignant neoplasm, skin	3.1 (2.2–4.1)	2.9 (2.1–3.6)	2.5 (1.8–3.3)	2.5 (1.8–3.2)	2.1 (1.6–2.6)	1.8 (1.4–2.2)	2.2 (1.7–2.8)	2.3 (1.8–2.8)	2.6 (1.9–3.3)	2.8 (2.1–3.5)	—
Vitamin/nutritional deficiency	0.9 (0.5–1.3)	0.5 (0.3–0.8)	1.0 (0.6–1.4)	1.6 (1.2–2.1)	1.0 (0.8–1.3)	1.2 (0.9–1.6)	1.6 (1.2–2.0)	1.5 (1.2–1.9)	1.9 (1.4–2.3)	2.2 (1.7–2.7)	↑
Administrative procedure – all*	0	0.2 (0.0–0.4)	0.5 (0.2–0.8)	0.5 (0.3–0.7)	0.8 (0.4–1.2)	0.7 (0.4–1.1)	1.3 (0.7–1.8)	1.7 (1.1–2.2)	1.7 (0.8–2.6)	1.7 (1.1–2.3)	↑
Asthma	1.5 (1.0–2.0)	2.3 (1.6–3.0)	1.2 (0.9–1.6)	1.1 (0.7–1.5)	0.9 (0.6–1.1)	1.2 (0.8–1.5)	1.1 (0.8–1.5)	1.3 (1.0–1.7)	1.3 (1.0–1.7)	1.6 (1.2–1.9)	—
Repair/fixation – suture/cast/ prosthetic device (apply/remove)*	1.3 (0.7–1.9)	1.4 (1.0–1.9)	1.4 (1.0–1.7)	1.1 (0.8–1.5)	1.0 (0.7–1.2)	1.2 (0.9–1.6)	0.9 (0.7–1.2)	1.5 (1.2–1.8)	1.3 (1.0–1.6)	1.6 (1.2–1.9)	—
Hypertension*	1.1 (0.6–1.5)	1.6 (1.0–2.2)	1.8 (1.2–2.3)	1.8 (1.2–2.4)	1.8 (1.2–2.4)	1.5 (1.0–1.9)	2.3 (1.4–3.1)	1.4 (1.0–1.8)	1.9 (1.3–2.4)	1.5 (1.1–2.0)	—

(continued)

Table 10.8 (continued): The 20 most common problems managed with involvement of PN or AHW, 2005–06 to 2014–15

Treatment	Rate per 100 encounters where PN/AHW activity described (95% CI)										↑↓(a)
	2005–06 (*n* = 4,013)	2006–07 (*n* = 4,710)	2007–08 (*n* = 5,712)	2008–09 (*n* = 6,052)	2009–10 (*n* = 8,999)	2010–11 (*n* = 7,625)	2011–12 (*n* = 7,210)	2012–13 (*n* = 7,234)	2013–14 (*n* = 7,615)	2014–15 (*n* = 7,018)	
Skin infection, other	1.8 (1.3–2.3)	1.7 (1.2–2.2)	1.6 (1.0–2.1)	1.9 (1.5–2.3)	1.8 (1.3–2.2)	1.6 (1.2–2.0)	1.7 (1.3–2.1)	1.1 (0.8–1.3)	1.4 (1.0–1.7)	1.4 (1.0–1.8)	—
Blood test – all*	0.6 (0.2–1.0)	1.1 (0.4–1.8)	1.3 (0.9–1.7)	1.4 (0.7–2.1)	1.5 (0.8–2.2)	1.6 (1.1–2.1)	1.9 (1.3–2.4)	2.0 (1.0–3.0)	1.5 (1.1–2.0)	1.3 (0.8–1.9)	—
Skin symptom/complaint, other	1.2 (0.7–1.7)	1.2 (0.8–1.7)	1.0 (0.7–1.3)	0.9 (0.6–1.2)	0.9 (0.7–1.2)	0.8 (0.5–1.1)	0.8 (0.6–1.1)	1.1 (0.8–1.5)	0.9 (0.7–1.2)	1.1 (0.8–1.5)	—
Other preventive procedures/ high-risk medication*	0.2 (0.0–0.3)	0.4 (0.1–0.6)	0.8 (0.3–1.2)	0.4 (0.2–0.7)	0.8 (0.5–1.1)	1.0 (0.6–1.4)	1.0 (0.6–1.3)	0.8 (0.4–1.1)	1.1 (0.7–1.5)	1.0 (0.7–1.4)	—
Excision/removal tissue/biopsy/ destruction/debridement/ cauterisation*	1.0 (0.5–1.4)	0.5 (0.3–0.8)	0.4 (0.2–0.5)	0.4 (0.2–0.6)	0.6 (0.4–0.8)	0.6 (0.4–0.8)	0.4 (0.3–0.6)	0.8 (0.5–1.0)	0.8 (0.5–1.0)	1.0 (0.6–1.4)	—
Female contraception, other	1.1 (0.6–1.5)	0.5 (0.3–0.8)	0.9 (0.6–1.2)	0.8 (0.5–1.0)	0.7 (0.4–0.9)	0.7 (0.5–1.0)	0.9 (0.7–1.2)	0.8 (0.6–1.1)	0.7 (0.5–1.0)	1.0 (0.7–1.3)	—
Ischaemic heart disease*	0.8 (0.2–1.4)	0.6 (0.3–0.9)	0.5 (0.3–0.6)	0.7 (0.5–1.0)	0.5 (0.3–0.6)	0.7 (0.5–1.0)	0.4 (0.2–0.6)	0.4 (0.3–0.6)	0.6 (0.4–0.8)	1.0 (0.6–1.4)	—
Total problems	**102.4 (101.7–103.2)**	**104.5 (103.3–105.8)**	**103.4 (102.7–104.2)**	**103.8 (103.1–104.5)**	**106.0 (104.8–107.3)**	**105.3 (104.3–106.3)**	**104.8 (103.9–105.7)**	**105.2 (104.4–105.9)**	**105.6 (104.4–106.8)**	**104.4 (103.6–105.1)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, 4.3, <hdl.handle.net/2123/13765>).

Note: PN/AHW – practice nurse or Aboriginal health worker; includes only those problems managed by PNs/AHWs at a rate of one or more per 100 encounters involving a PN/AHW in any of the years reported.
CI – confidence interval; NOS – not otherwise specified; NEC – not elsewhere classified; PN – practice nurse; AHW – Aboriginal health worker.

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 2005–06 to 2014–15, are reported in two ways: as rates per 100 problems managed (Table 11.1a) and as rates per 100 encounters (Table 11.1b). In the text 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 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 2005–06 and 2014–15. 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 35.8% between 2005–06 (101.1 million encounters) and 2014–15 (137.3 million encounters).[6,10] 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 2014–15 BEACH year can be found in the companion report, *General practice activity in Australia 2014–15*.[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 2005–06 to 2014–15. 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.

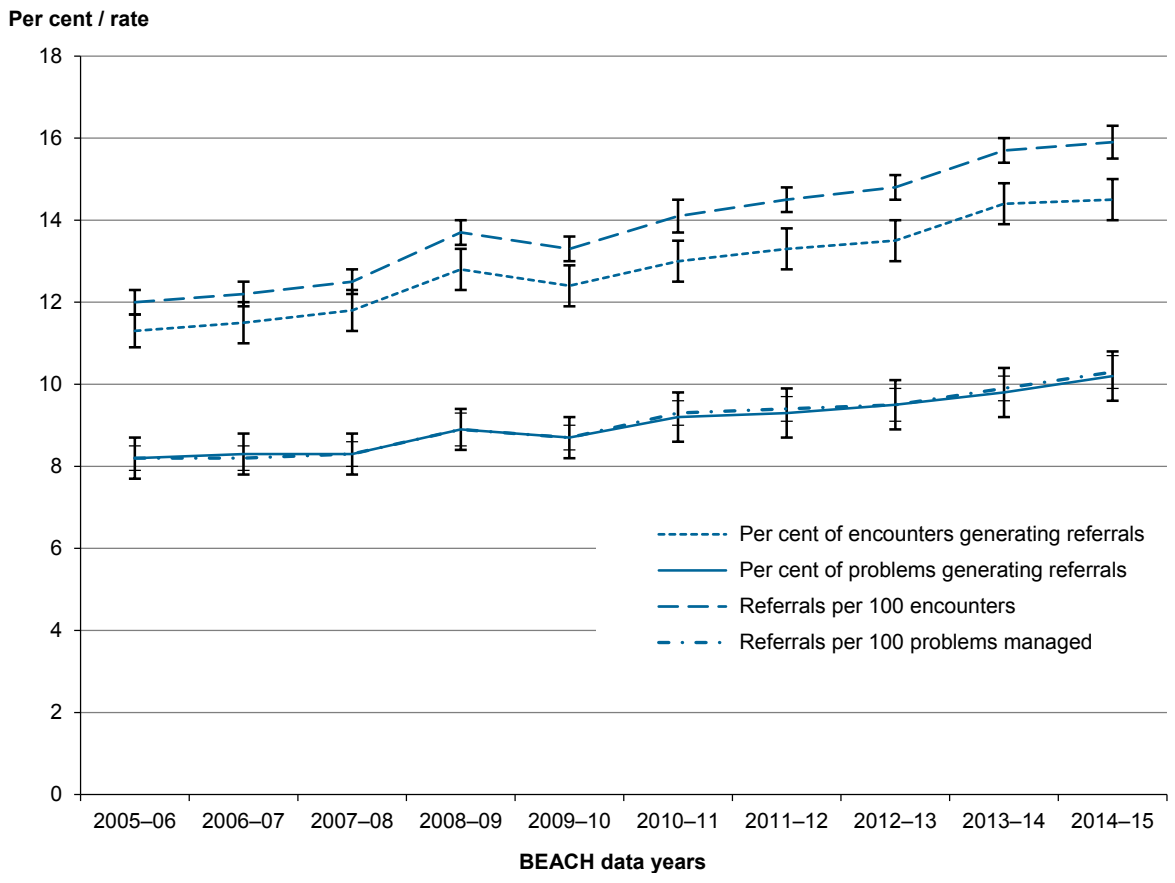
The likelihood that a problem being managed at encounter would be referred increased significantly over the study period, with 8.2% of problems referred in 2005–06 and 10.2% in 2014–15. There was a significant increase in the overall rate of referrals, from 8.2 per 100 problems managed in 2005–06 to 10.3 per 100 in 2014–15, 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 5.6 in 2005–06 to 6.2 per 100 in 2014–15. There were no changes in the rate of referrals to the most frequent individual medical specialist types, except for a marginally significant increase in referrals to orthopaedic surgeons and a marginally significant decrease in referrals to ophthalmologists. Although

the rate of referrals to individual types of specialists may have changed only marginally, the significant increase in the referral rate to specialists overall is consistent with a slight increase across many specialist types.

The rate of referral to allied health services per 100 problems managed increased from 2.0 in 2005–06 to 3.3 per 100 in 2014–15 (an increase of 65%). Strong contributions to the overall rate arose from a four-fold increase in referrals to psychologists (from 0.2. to 0.8 per 100 problems) and a doubling of the rate of referrals to podiatrists/chiropodists (from 0.2 to 0.4) (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 (11.3% involving a referral in 2005–06 and 14.5% in 2014–15). Overall, referrals increased significantly from 12.0 per 100 encounters in 2005–06 to 15.9 per 100 in 2014–15. Extrapolation of this change suggests there were about 9.7 million more GP referrals nationally in 2014–15 than in 2005–06. These included about 4.9 million more referrals to medical specialists and about 4.2 million more to allied health services. Of these 4.2 million additional allied health referrals, 1.5 million were to psychologists, probably largely due to the government's introduction of the Better Outcomes[48] and later the Better Access[49] mental health programs. There were also about 810,000 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.[45]



Note: Data are drawn from Tables 11.1a and 11.1b.

Figure 11.1: Proportion of encounters and problems managed where referrals were made, and referral rates per 100 encounters and per 100 problems, 2005–06 to 2014–15 (95% confidence intervals)

Table 11.1a: The most frequent referrals (rate per 100 problems), 2005–06 to 2014–15

Referral	Rate per 100 problems (95% CI) 2005–06 (*n* = 149,088)	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)	↑↓[a]
At least one referral	8.2 (7.9–8.5)	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)	↑
Medical specialist*	5.6 (5.4–5.8)	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)	↑
Surgeon	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (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)	—
Orthopaedic surgeon	0.5 (0.4–0.5)	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)	↑
Cardiologist	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 (0.4–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	—
Dermatologist	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 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	—
Gastroenterologist	0.4 (0.3–0.4)	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)	—
Ophthalmologist	0.5 (0.5–0.6)	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)	↓
Gynaecologist	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	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)	—
Ear, nose and throat	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)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	—
Urologist	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 (0.2–0.2)	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)	—
Neurologist	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 (0.1–0.2)	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)	—
Psychiatrist	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 (0.1–0.2)	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)	—
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 (0.1–0.1)	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)	—

(continued)

Table 11.1a (continued): The most frequent referrals (rate per 100 problems), 2005–06 to 2014–15

Referral	Rate per 100 problems (95% CI) 2005–06 (*n* = 149,088)	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)	↑↓[(a)]
Endocrinologist	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 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	—
Paediatrician	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 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	—
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 (0.1–0.1)	0.1 (0.1–0.2)	—
Allied health services*	2.0 (1.8–2.1)	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)	↑
Physiotherapy	0.8 (0.7–0.9)	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)	—
Psychologist	0.2 (0.2–0.2)	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)	↑
Podiatrist/chiropodist	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	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)	↑
Dietitian/nutritionist	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)	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)	—
Dentist	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (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)	—
Hospital*	0.3 (0.2–0.3)	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)	—
Emergency department*	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)	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)	—
Other referrals*	0.3 (0.2–0.3)	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)	—
Total referrals	**8.2 (7.9–8.5)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/13765>)

Table 11.1b: The most frequent referrals (rate per 100 encounters), 2005–06 to 2014–15

Referral	Rate per 100 encounters (95% CI)										↑↓[a]
	2005–06 (*n* = 101,993)	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)	
At least one referral	11.3 (10.9–11.8)	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)	↑
Medical specialist*	8.2 (7.8–8.5)	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)	↑
Surgeon	0.8 (0.7–0.8)	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)	—
Orthopaedic surgeon	0.7 (0.6–0.8)	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)	—
Cardiologist	0.6 (0.5–0.7)	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)	↑
Dermatologist	0.7 (0.6–0.8)	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)	—
Gastroenterologist	0.5 (0.5–0.6)	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)	↑
Ophthalmologist	0.8 (0.7–0.9)	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)	↓
Gynaecologist	0.5 (0.5–0.6)	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)	—
Ear, nose and throat	0.5 (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 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	—
Urologist	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)	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)	—
Neurologist	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (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)	—
Psychiatrist	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 (0.2–0.2)	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)	—

(continued)

Table 11.1b (continued): The most frequent referrals (rate per 100 encounters), 2005–06 to 2014–15

Referral	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Clinic/centre	0.1 (0.1–0.1)	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)	↑
Endocrinologist	0.2 (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 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	—
Allied health services*	2.9 (2.7–3.1)	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)	↑
Physiotherapy	1.1 (1.0–1.3)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.1 (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)	↑
Psychologist	0.3 (0.2–0.3)	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)	↑
Podiatrist/chiropodist	0.2 (0.2–0.3)	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)	↑
Dietitian/nutritionist	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)	0.3 (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)	↑
Dentist	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (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)	—
Hospital*	0.4 (0.3–0.4)	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)	—
Emergency department*	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	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)	↑
Other referrals*	0.4 (0.3–0.4)	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)	↑
Total referrals	**12.0 (11.5–12.5)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/13765>)

Note: CI – confidence interval.

12 Investigations

Investigations ordered by GPs or undertaken in the practice for each of the 10 years from 2005–06 to 2014–15 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 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 investigations ordered between 2005–06 and 2014–15. 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 2014–15 can be found in Chapter 12 of *General practice activity in Australia 2014–15*.[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 Care[50]
- 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 2001[51]
- 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 2003[52]
- 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*[53]
- a 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 2009[54]
- a 2013 PhD thesis, *Evaluation of pathology ordering by general practitioners in Australia*[55]
- a 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.[56] 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 12.7% of all problems managed in 2005–06 and 13.4% in 2014–15 (Table 12.1a). This is the first 10-year period of BEACH data (since 1998) that there was not a significant increase in the likelihood of tests being ordered in the management of problems. In contrast, the proportion of encounters involving at least one pathology test increased over the decade from 16.4% of encounters to 18.1% (Table 12.1b), equating to approximately 8.3 million more encounters at which pathology was ordered nationally in 2014–15 than 10 years earlier. It is noteworthy that most of this change occurred between 2005–06 and 2006–07, and has remained stable from 2006–07 to 2014–15.

Figure 12.1 shows graphically, the change in the likelihood of ordering pathology at encounters, and the increased rates of total pathology ordering per 100 problems and per 100 encounters, over the 10 years to 2014–15.

The number of pathology tests (or batteries of tests) ordered increased from 26.4 per 100 problems managed in 2005–06 to 30.3 per 100 problems in 2014–15 (Table 12.2a). The number of tests ordered per 100 encounters increased from 38.6 tests (or batteries of tests) per 100 encounters in 2005–06 to 47.0 in 2014–15 (Table 12.2b), which, when combined with the increase in GP attendance rate, extrapolates to approximately 25.5 million more tests (or batteries of tests) ordered in 2014–15 than in 2005–06 nationally.

Readers should consider the impact of the changes in the number and types of problems on the rates of pathology tests ordered by GPs. For example, the number of problems managed rose from 146.2 to 155.1 per 100 encounters (reported in Chapter 5), and has contributed to the increased testing rate per 100 encounters. Similarly, the increased rate of problems labelled as “test results” reported in Chapter 7, Section 7.2, may have an impact on GPs’ test ordering behaviour.

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. Rather, it is due to the combined effect of:

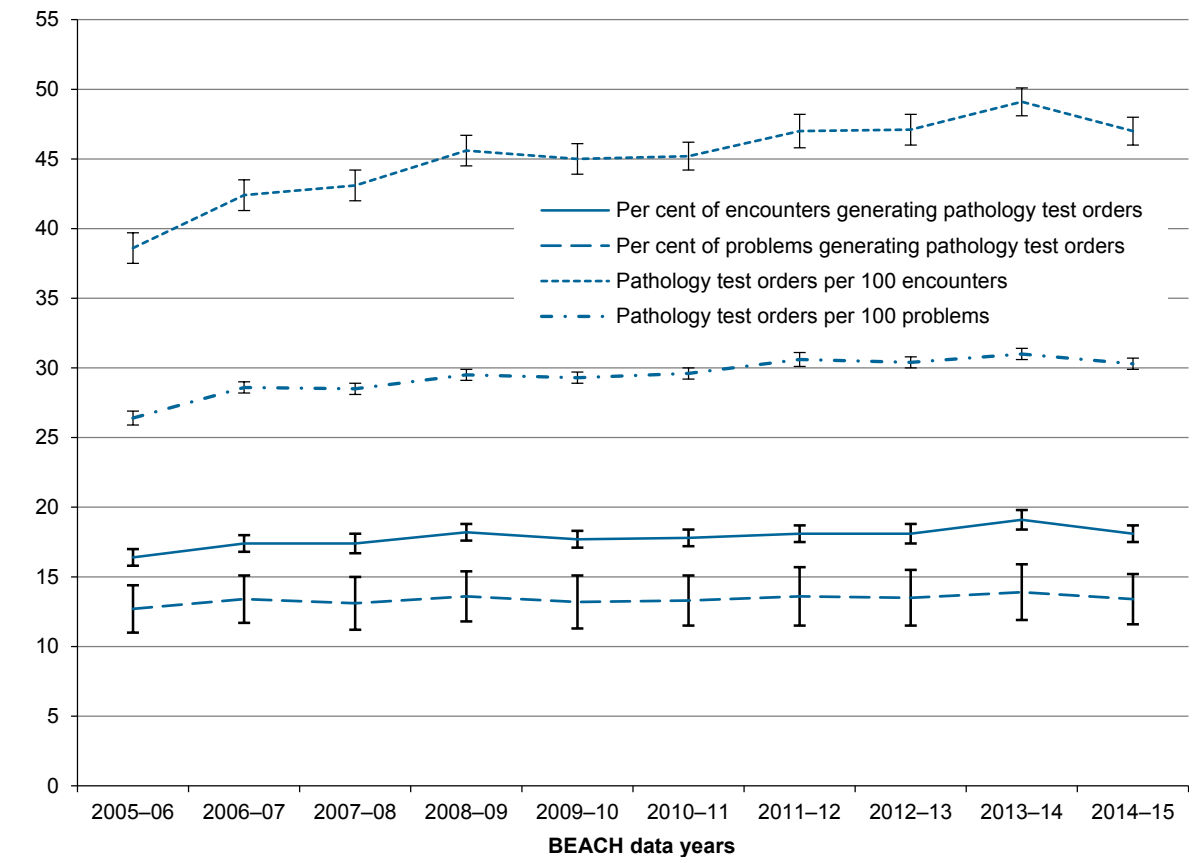
- the increased number of tests ordered when the decision to test was made, rising from an average 2.08 tests/batteries per tested problem in 2005–06[39] to 2.35 in 2014–15[1]
- the increased number of problems managed per encounter, rising from 146.2 to 155.1 per 100 encounters over the decade (see Chapter 5)
- the increased GP attendance rate in Australia.[10]

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.[57]

Orders for chemical pathology tests increased from 14.8 per 100 problems in 2005–06 to 17.6 per 100 in 2014–15, an increase of 19%. Immunology tests almost doubled over the decade, from 0.4 to 0.7 per 100 problems, and there were marginal increases in the rates of tissue pathology and ‘simple’ tests. Order rates for the other test groups did not change (Table 12.2a).

Orders for chemistry tests increased by 25.8%, from 21.7 per 100 encounters in 2005–06 to 27.3 in 2014–15. This extrapolates to an estimated 15.5 million more chemistry test orders nationally in 2014–15 than 10 years earlier. Haematology tests increased at a slower rate, from 7.3 tests per 100 encounters in 2005–06 to 8.4 in 2014–15, a national increase of approximately 4.2 million tests. Microbiology test orders increased from 5.6 per 100 encounters in 2005–06 to 6.4 in 2014–15, extrapolating to an increase of about 3.1 million additional test orders nationally in 2014–15. There were also significant increases in order rates for immunology tests and ‘other’ tests, marginal increases in tissue pathology and simple tests, and no changes in the other test groups.



Note: Data are drawn from Tables 12.1a, 12.1b, 12.2a, and 12.2b.

Figure 12.1: Proportion of encounters and problems where pathology was ordered, and pathology test order rates per 100 encounters and per 100 problems, 2005–06 to 2014–15 (95% confidence intervals)

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 2005–06 to 6.6% in 2014–15. Between 2005–06 and 2014–15, the number of problems managed per 100 encounters rose from 146.2 to 155.1 (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 7.8% in 2005–06 to 9.8% in 2014–15, resulting in an estimated 5.6 million more encounters nationally at which imaging was ordered in 2014–15 than in 2005–06.

Total imaging test orders increased significantly from 6.0 per 100 problems managed in 2005–06 to 7.4 per 100 in 2014–15. The rate of imaging test orders per 100 encounters also increased significantly from 8.8 in 2005–06 to 11.5 in 2014–15 (Table 12.3b), an increase of 30.7% which equates to approximately 6.9 million more imaging orders nationally in 2014–15 than 10 years earlier.

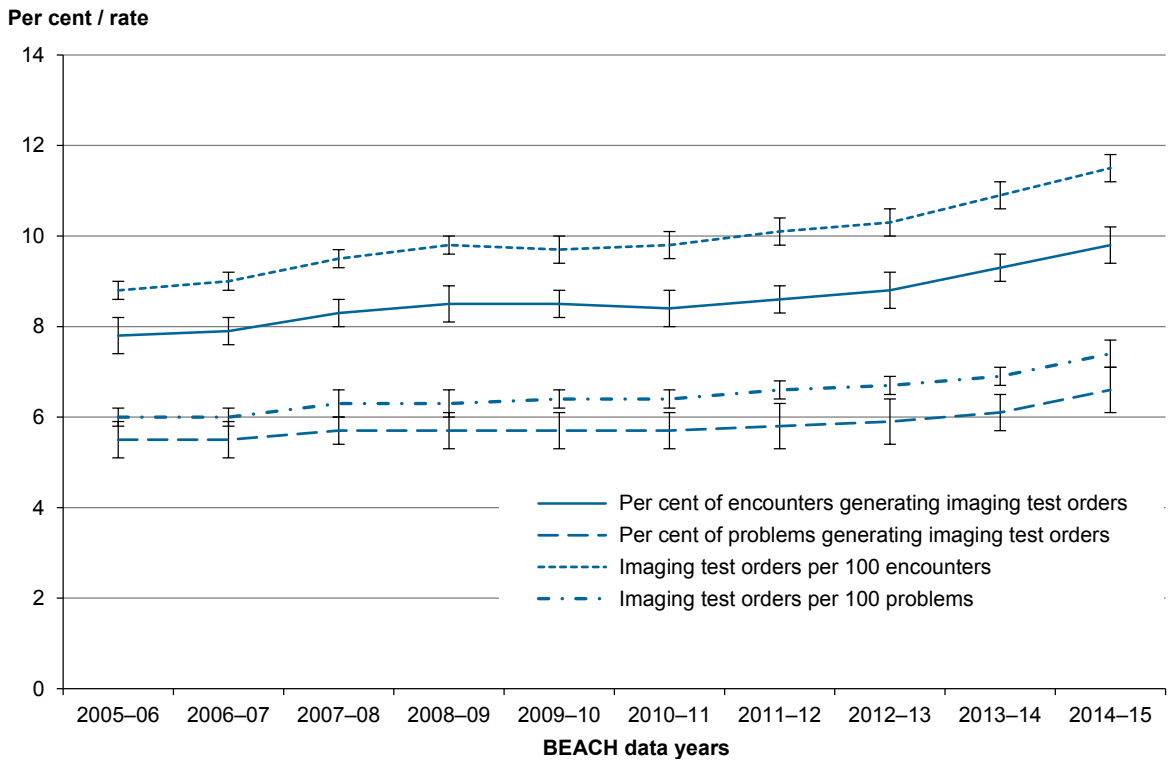
Figure 12.2 provides a graphical view of the change in the likelihood of GPs ordering imaging and the increases in the rates of imaging tests ordered per 100 problems and per 100 encounters over the 10 years to 2014–15.

Imaging test orders by MBS group

Tables 12.3a and 12.3b show the changes in imaging orders by MBS imaging group from 2005–06 to 2014–15. 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 55.0% over the decade, from 2.0 tests per 100 problems in 2005–06 to 3.1 per 100 in 2014–15. In contrast, the rate of diagnostic radiology marginally decreased (from 3.3 to 2.9 per 100 problems). This is the first time since BEACH began in 1998 that ultrasound imaging orders outnumbered those for diagnostic radiology.

There were also significant increases in the order rate of computerised tomography (from 0.7 to 0.9 per 100 problems) and magnetic resonance imaging (from less than 0.05 per 100 problems in 2005–06 to 0.3 in 2014–15). The order rate of nuclear medicine did not change over the decade (Table 12.3a).

Ultrasound imaging orders increased from 2.9 tests per 100 encounters in 2005–06 to 4.9 per 100 in 2014–15, a national increase of about 3.8 million ultrasound orders in 2014–15 than a decade earlier. Computerised tomography increased from 1.0 per 100 encounters in 2005–06 to 1.5 in 2014–15, equating to 1.0 million more orders for computerised tomography in 2014–15 than a decade earlier. Magnetic resonance imaging orders increased from less than 0.05 per 100 encounters in 2005–06 to 0.5 in 2014–15. Order rates of diagnostic radiology and nuclear medicine did not change over this period.



Note: Data are drawn from Tables 12.1a, 12.1b, 12.3a, and 12.3b.

Figure 12.2: Proportion of encounters and problems where imaging was ordered, and imaging test order rates per 100 encounters and per 100 problems, 2005–06 to 2014–15 (95% confidence intervals)

Table 12.1a: Problems for which pathology or imaging was ordered (per cent of problems), 2005–06 to 2014–15

	Per cent of problems (95% CI)										
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	↑↓[a]
Test ordered	(*n* = 149,088)	(*n* = 136,333)	(*n* = 145,078)	(*n* = 149,462)	(*n* = 155,373)	(*n* = 146,141)	(*n* = 152,286)	(*n* = 152,517)	(*n* = 151,675)	(*n* = 153,133)	
At least one pathology test ordered	12.7 (12.2–13.2)	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)	—
At least one imaging test ordered	5.5 (5.3–5.7)	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)	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

Note: CI – confidence interval.

Table 12.1b: Encounters at which pathology or imaging was ordered (per cent of encounters), 2005–06 to 2014–15

	Per cent of encounters (95% CI)										
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	↑↓[a]
Test ordered	(*n* = 101,993)	(*n* = 91,804)	(*n* = 95,898)	(*n* = 96,688)	(*n* = 101,349)	(*n* = 95,839)	(*n* = 99,030)	(*n* = 98,564)	(*n* = 95,879)	(*n* = 98,728)	
At least one pathology test ordered	16.4 (15.8–16.9)	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)	↑
At least one imaging test ordered	7.8 (7.4–8.1)	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)	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06.

Note: CI – confidence interval.

Table 12.2a: Pathology orders by MBS pathology groups (rate per 100 problems), 2005–06 to 2014–15

Pathology test ordered	Rate per 100 problems (95% CI)										↑↓[(a)]
	2005–06 (*n* = 149,088)	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)	
Chemistry*	14.8 (14.1–15.6)	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)	↑
Haematology*	5.0 (4.7–5.3)	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)	—
Microbiology*	3.8 (3.6–4.1)	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)	—
Cytopathology*	1.2 (1.1–1.3)	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)	↓
Immunology*	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.6 (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)	↑
Other NEC*	0.5 (0.4–0.6)	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)	—
Tissue pathology*	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)	0.4 (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)	↑
Simple tests*	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)	↑
Infertility/pregnancy*	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	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)	—
Total pathology tests	**26.4 (25.3–27.5)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 and ICPC-2 PLUS codes (see Appendix 4, Table A4.8, <hdl.handle.net/2123/13765>).

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

Table 12.2b: Pathology orders by MBS pathology groups (rate per 100 encounters), 2005–06 to 2014–15

	Rate per 100 encounters (95% CI)										
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	↑↓[(a)]
Pathology test ordered	(*n* = 101,993)	(*n* = 91,804)	(*n* = 95,898)	(*n* = 96,688)	(*n* = 101,349)	(*n* = 95,839)	(*n* = 99,030)	(*n* = 98,564)	(*n* = 95,879)	(*n* = 98,728)	
Chemistry*	21.7 (20.5–22.9)	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)	↑
Haematology*	7.3 (6.9–7.7)	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)	↑
Microbiology*	5.6 (5.2–5.9)	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)	↑
Cytopathology*	1.7 (1.6–1.9)	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)	—
Immunology*	0.6 (0.5–0.7)	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)	↑
Tissue pathology*	0.7 (0.6–0.8)	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)	↑
Other NEC*	0.6 (0.5–0.7)	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)	↑
Simple tests*	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	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)	↑
Infertility/pregnancy*	0.2 (0.2–0.3)	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)	—
Total pathology tests	**38.6 (36.9–40.3)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

* Includes multiple ICPC-2 and ICPC-2 PLUS codes (see Appendix 4, Table A4.8, <hdl.handle.net/2123/13765>).

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), 2005–06 to 2014–15

Imaging test ordered	Rate per 100 problems (95% CI)										↑↓(a)
	2005–06 (*n* = 149,088)	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)	
Ultrasound*	2.0 (1.9–2.1)	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)	↑
Diagnostic radiology*	3.3 (3.1–3.4)	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)	↓
Computerised tomography*	0.7 (0.6–0.8)	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)	↑
Magnetic resonance imaging*	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.0Ŧ (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)	↑
Nuclear medicine*	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)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	—
Total imaging tests	**6.0 (5.8–6.3)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

Ŧ 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 A4.9, <hdl.handle.net/2123/13765>).

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

Table 12.3b: Imaging orders by MBS imaging groups (rate per 100 encounters), 2005–06 to 2014–15

Imaging test ordered	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2005–06 (*n* = 101,993)	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)	
Ultrasound*	2.9 (2.7–3.1)	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)	↑
Diagnostic radiology*	4.8 (4.5–5.0)	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)	—
Computerised tomography*	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 (1.1–1.4)	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)	↑
Magnetic resonance imaging*	0.0[Ŧ] (0.0–0.1)	0.0[Ŧ] (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)	↑
Nuclear medicine*	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	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)	—
Total imaging tests	**8.8 (8.4–9.2)**	**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)**	↑

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

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

* Includes multiple ICPC-2 and ICPC-2 PLUS codes (see Appendix 4, Table A4.9, <hdl.handle.net/2123/13765>).

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 2014–15, 85.8% of Australians visited a GP at least once (personal communication, DoH, June 2015). 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 Chapter 2, Section 2.6.

- In brief, measured patient risk factors include self-reported height and weight (to calculate body mass index or BMI), alcohol consumption and smoking status. Each GP completes 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 2014–15*.[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 2005–06 to 2014–15 (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 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 eight most recent years (Tables 13.1b, 13.2b, 13.3b).

The direction and type of change from 2005–06 to 2014–15 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06; 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 recommendations[58] 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).[59,60]

Adults

Overall prevalence of overweight/obesity in adults sampled at general practice encounters increased significantly from 56.7% in 2005–06 (95% CI: 55.9–57.6) to 62.1% in 2014–15 (95% CI: 61.3–63.0) (results not tabulated).

- The prevalence of obesity in adults rose from 22.2% in 2005–06 to 28.0% in 2014–15 (Table 13.1a), and this significant increase was apparent among both male and female patients (Tables 13.2a and 13.3a). The increase in obesity was evident between 2005–06 and 2010–11 (from 22.2% to 26.7%), and was then static at about 27% for the 3 years 2010–11 to 2012–13. In 2013–14, there was a further increase by over one percentage point (to 27.8%) which was maintained in 2014–15 (28.0%).
- 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 40.5% in 2005–06 to 35.5% in 2014–15 (Table 13.1a). This significant decrease was apparent among both males and females (Tables 13.2a and 13.3a). The decrease in normal weight was evident between 2005–06 and 2010–11 (from 40.5% to 35.8%), and was then static at about 36% for the 3 years from 2010–11 to 2012–13. In 2014–15, there was a further decrease by over one percentage point (to 35.1% in 2013–14 and maintained in 2014–15), corresponding with the increase in obesity.
- In summary, for both male and female patients between 2005–06 and 2014–15, there was a significant increase in the rates 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. This upward movement from normal weight to overweight, and overweight to obesity, occurred by 2013–14 and was maintained in 2014–15.
- 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 2014–15, from 23.4% to 27.2%, and a corresponding decrease in the prevalence of normal weight, from 38.9% to 36.6% (Table 13.1b). This pattern was noted among female patients, but only the increase in obesity was apparent in male patients (Tables 13.2b and 13.3b).

Children

The prevalence of overweight and obesity among sampled children aged 2–17 years remained static for 7 years from 2005–06 to 2011–12 (around 18% and 10% respectively). There was a marginal decrease in obesity to around 9% in 2014–15 (Table 13.1a). Similar patterns were present among both male and female children; however, there were no statistically significant change among either boys or girls over the decade (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 17.1% and 3.6% respectively in 2005–06 to 14.1% and 2.2% in 2014–15 (Table 13.1a). These decreases were apparent among both sexes (Tables 13.2a and 13.3a). There was also a significant increase in the proportion who had never smoked, from 52.3% in 2005–06 to 55.9% in 2014–15, also apparent among both male and female patients.

Rates of daily smoking were significantly higher among male patients than female patients in all years. In 2014–15, prevalence was 17.4% of males and 11.9% of females.

The estimates for the adult GP–patient attending population (after adjusting for age–sex general practice attendance patterns) showed a decrease in prevalence of daily smoking between 2007–08 and 2014–15 from 19.3% to 16.5%, and a corresponding increase in prevalence of patients who had never smoked from 51.5% to 55.5% (Table 13.1b). This pattern was noted for male patients, but among female patients only a significant increase in never smoking was noted (Tables 13.2b and 13.3b).

13.3 Alcohol consumption

To measure alcohol consumption, BEACH uses AUDIT-C[61] which is the first three items from the WHO Alcohol Use Disorders Identification Test (AUDIT),[62] with scoring for an Australian setting.[63] The AUDIT-C has demonstrated validity and internal consistency and performs as well as the full AUDIT tool.[64] 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).[61] 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.[63]

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 26% in 2005–06 to 23% in 2014–15. There was a corresponding increase in the proportion who were non-drinkers, from about 29% in 2005–06 to 34% in 2014–15 (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 decrease in prevalence of at-risk levels of alcohol consumption between 2007–08 and 2014–15 from 29.3% to 26.1%, and a corresponding increase in the proportion of non-drinkers, from 26.5% to 30.8% (Table 13.1b). This pattern in adults was noted for 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 a significant increase in the proportion of sampled adults with one risk factor, from 49.2% in 2005–06 to 52.2% in 2014–15 (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 three risk factors from 3.9% to 3.2% — corresponding with the increase in the proportion with one risk factor.

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 2014–15 from 48.2% to 50.1%, and a corresponding decrease in prevalence of all three risk factors from 5.1% to 3.9% (Table 13.1b). This pattern in adults applied among male patients, but not among female patients (Tables 13.2b and 13.3b).

Table 13.1a: Patient risk factors, 2005–06 to 2014–15

Risk factor	Per cent (95% CI)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adults (aged 18 years and over)											
Body mass index class[b] (*n*)	**33,101**	**32,334**	**31,062**	**33,526**	**31,932**	**31,315**	**32,372**	**31,452**	**31,371**	**32,956**	
Obese	22.2 (21.5–22.9)	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)	↑
Overweight	34.6 (33.9–35.2)	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)	—
Normal	40.5 (39.7–41.4)	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)	↓
Underweight	2.8 (2.5–3.0)	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)	—
Smoking status (*n*)	**33,558**	**31,176**	**31,652**	**34,194**	**32,744**	**32,160**	**33,086**	**32,499**	**32,166**	**33,685**	
Daily	17.1 (16.3–17.8)	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)	↓
Occasional	3.6 (3.4–3.9)	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)	↓
Previous	27.1 (26.3–27.8)	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)	—
Never	52.3 (51.3–53.2)	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)	↑
Alcohol consumption (*n*)	**32,753**	**30,347**	**30,796**	**33,347**	**31,771**	**31,190**	**33,257**	**31,640**	**31,369**	**32,835**	
At-risk alcohol level	25.9 (25.0–26.8)	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)	↓
Responsible drinker	44.8 (44.0–45.7)	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)	↓
Non-drinker	29.3 (28.2–30.4)	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)	↑

(continued)

Table 13.1a (continued): Patient risk factors, 2005–06 to 2014–15

Risk factor	Per cent (95% CI)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adults (aged 18 years and over)											
Number of risk factors[c] (*n*)	**32,076**	**29,386**	**30,002**	**32,432**	**30,795**	**30,177**	**31,401**	**30,345**	**30,250**	**31,952**	
Zero	27.5 (26.7–28.3)	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)	↓
One	49.2 (48.5–49.9)	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)	↑
Two	19.4 (18.8–20.0)	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)	—
Three	3.9 (3.6–4.1)	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)	↓
Children (aged 2–17 years)[d](*n*)	**3,338**	**3,087**	**3,046**	**2,970**	**3,183**	**3,008**	**3,093**	**3,069**	**2,536**	**3,112**	
Obese	10.9 (9.7–12.1)	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)	↓
Overweight	17.9 (16.5–19.2)	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)	—
Normal	60.7 (58.9–62.5)	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)	—
Underweight	10.5 (9.3–11.7)	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)	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

(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) Being overweight or obese, a daily smoker or an at-risk drinker are the risk factors an adult may have.

(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 2014–15

Risk factor	Per cent (95% CI)								↑↓[a]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adults (aged 18 years and over)									
Body mass index class[b] (*n*)	**31,292**	**33,516**	**31,924**	**31,317**	**32,373**	**31,449**	**31,363**	**32,956**	
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)	↑
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)	↓
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)	↓
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)	—
Smoking status (*n*)	**31,884**	**34,189**	**32,734**	**32,161**	**33,085**	**32,497**	**32,156**	**33,685**	
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)	↓
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)	↓
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)	—
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)	↑
Alcohol consumption (*n*)	**30,796**	**33,347**	**31,771**	**31,190**	**33,257**	**31,640**	**31,369**	**32,835**	
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)	↓
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)	—
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)	↑

(continued)

Table 13.1b (continued): Prevalence of patient risk factors among adults 18+ attending general practice at least once, 2007–08 to 2014–15

Risk factor	Per cent (95% CI)								↑↓[(a)]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
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**	
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)	—
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)	↑
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)	—
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)	↓

(a) The direction and type of change from 2007–08 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2007–08; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2007–08; — indicates there was no significant change in 2014–15 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) Being overweight or obese, a daily smoker or an at-risk drinker are the risk factors an adult may have.

Note: CI – confidence interval.

Table 13.2a: Patient risk factors among male patients, 2005–06 to 2014–15

Risk factor	Per cent (95% CI)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adult males (aged 18 years and over)											
Body mass index class[b] (*n*)	**12,882**	**12,715**	**12,126**	**13,595**	**11,945**	**12,322**	**12,531**	**12,171**	**12,022**	**12,947**	
Obese	21.6 (20.7–22.5)	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)	↑
Overweight	42.6 (41.6–43.6)	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)	—
Normal	34.3 (33.3–35.4)	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)	↓
Underweight	1.5 (1.3–1.7)	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)	↓
Smoking status (*n*)	**13,016**	**12,257**	**12,335**	**13,841**	**12,260**	**12,600**	**12,777**	**12,518**	**12,294**	**13,180**	
Daily	20.7 (19.7–21.8)	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)	↓
Occasional	4.1 (3.7–4.6)	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)	↓
Previous	35.7 (34.5–36.9)	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)	—
Never	39.5 (38.2–40.7)	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)	↑
Alcohol consumption (*n*)	**12,792**	**12,005**	**12,071**	**13,583**	**11,974**	**12,321**	**12,572**	**12,274**	**12,079**	**12,969**	
At-risk alcohol level	31.6 (30.3–32.8)	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)	↓
Responsible drinker	47.9 (46.7–49.1)	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)	—
Non-drinker	20.5 (19.4–21.6)	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)	↑

(continued)

Table 13.2a (continued): Patient risk factors among male patients, 2005–06 to 2014–15

Risk factor	Per cent (95% CI)										↑↓[(a)]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adult males (aged 18 years and over)											
Number of risk factors[(c)] (*n*)	**12,572**	**11,662**	**11,784**	**13,228**	**11,613**	**11,955**	**12,252**	**11,827**	**11,687**	**12,665**	
Zero	21.1 (20.1–22.0)	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 (18.0–198.)	18.9 (18.0–19.8)	19.6 (18.7–20.4)	19.2 (18.3–20.1)	↓
One	47.3 (46.3–48.3)	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)	↑
Two	25.7 (24.8–26.7)	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)	—
Three	5.9 (5.5–6.4)	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)	↓
Male children (aged 2–17 years)[(d)] (*n*)	**1,640**	**1,509**	**1,484**	**1,415**	**1,499**	**1,450**	**1,487**	**1,451**	**1,226**	**1,495**	
Obese	11.6 (9.9–13.3)	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)	—
Overweight	17.1 (15.3–19.0)	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)	—
Normal	60.3 (57.8–62.8)	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)	—
Underweight	11.0 (9.3–12.6)	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)	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2005–06; — indicates there was no significant change in 2014–15 compared with 2005–06.

(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) The risk factors for an adult included being: overweight or obese, a daily smoker or an at-risk drinker.

(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 2014–15

Risk factor	Per cent (95% CI)								↑↓[a]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
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**	
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)	↑
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)	—
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)	—
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)	—
Smoking status (*n*)	**12,335**	**13,841**	**12,260**	**12,600**	**12,777**	**12,518**	**12,294**	**13,180**	
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)	↓
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)	—
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)	—
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)	↑
Alcohol consumption (*n*)	**12,071**	**13,583**	**11,974**	**12,321**	**12,572**	**12,274**	**12,079**	**12,969**	
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)	↓
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)	—
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 (21.1–32.6)	21.7 (20.5–22.8)	22.0 (20.7–23.2)	23.0 (21.8–24.2)	↑

(continued)

Table 13.2b (continued): Prevalence of patient risk factors among adult males 18+ attending general practice at least once, 2007–08 to 2014–15

Risk factor	Per cent (95% CI)								↑↓[(a)]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adult males (aged 18 years and over)									
Number of risk factors[(c)] (*n*)	**11,784**	**13,228**	**11,613**	**11,954**	**12,252**	**11,827**	**11,687**	**12,665**	
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)	—
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)	↑
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)	—
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)	↓

(a) The direction and type of change from 2007–08 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2007–08; and — indicates there was no significant change in 2014–15 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) The risk factors for an adult included being: overweight or obese, a daily smoker or an at-risk drinker.

Note: CI – confidence interval.

Table 13.3a: Patient risk factors among female patients, 2005–06 to 2014–15

Risk factor	Per cent (95% CI)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adult females (aged 18 years and over)											
Body mass index class[b] (*n*)	**19,976**	**19,410**	**18,703**	**19,671**	**19,735**	**18,741**	**19,605**	**19,064**	**19,112**	**19,765**	
Obese	22.6 (21.7–23.4)	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)	↑
Overweight	29.3 (28.6–30.0)	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)	—
Normal	44.6 (43.6–45.6)	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)	↓
Underweight	3.5 (3.2–3.8)	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)	—
Smoking status (*n*)	**20,288**	**18,718**	**19,081**	**20,079**	**20,224**	**19,301**	**20,060**	**19,758**	**19,625**	**20,252**	
Daily	14.7 (14.0–15.4)	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)	↓
Occasional	3.3 (3.0–3.6)	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)	↓
Previous	21.5 (20.7–22.3)	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)	—
Never	60.5 (59.5–61.6)	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)	↑
Alcohol consumption (*n*)	**19,961**	**18,342**	**18,715**	**19,764**	**19,979**	**18,869**	**19,685**	**19,366**	**19,290**	**19,866**	
At-risk alcohol level	22.2 (21.3–23.2)	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)	↓
Responsible drinker	42.8 (41.8–43.9)	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)	↓
Non-drinker	35.0 (33.6–36.3)	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)	↑

(continued)

Table 13.3a (continued): Patient risk factors among female patients, 2005–06 to 2014–15

Risk factor	Per cent (95% CI)										↑↓[a]
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
Adult females (aged 18 years and over)											
Number of risk factors[c] (*n*)	**19,504**	**17,724**	**18,218**	**19,204**	**19,182**	**18,222**	**19,149**	**18,518**	**18,563**	**19,287**	
Zero	31.7 (30.7–32.7)	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)	—
One	50.4 (49.5–51.2)	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)	↑
Two	15.4 (14.7–16.0)	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)	—
Three	2.6 (2.3–2.8)	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)	—
Female children (aged 2–17 years)[d] (*n*)	**1,698**	**1,578**	**1,562**	**1,555**	**1,684**	**1,558**	**1,606**	**1,618**	**1,310**	**1,617**	
Obese	10.3 (8.7–11.8)	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)	—
Overweight	18.6 (16.7–20.5)	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)	—
Normal	61.1 (58.8–63.5)	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)	—
Underweight	10.0 (8.5–11.6)	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)	—

(a) The direction and type of change from 2005–06 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2005–06; and — indicates there was no significant change in 2014–15 compared with 2005–06.

(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) The risk factors for an adult included being: overweight or obese, a daily smoker or an at-risk drinker.

(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 2014–15

Risk factor	Per cent (95% CI) 2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	↑↓[a]
Adult females (aged 18 years and over)									
Body mass index class[b] (*n*)	**18,703**	**19,671**	**19,735**	**18,741**	**19,605**	**19,064**	**19,112**	**19,765**	
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)	↑
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)	—
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)	↓
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)	—
Smoking status (*n*)	**19,081**	**20,079**	**20,224**	**19,301**	**20,060**	**19,758**	**19,625**	**20,252**	
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)	—
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)	↓
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)	—
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)	↑
Alcohol consumption (*n*)	**18,725**	**19,764**	**19,797**	**18,869**	**19,685**	**19,366**	**19,290**	**19,866**	
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)	↓
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)	↓
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)	↑

(continued)

Table 13.3b (continued): Prevalence of patient risk factors among adult females 18+ attending general practice at least once, 2007–08 to 2014–15

Risk factor	Per cent (95% CI)								↑↓[(a)]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	
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**	
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)	—
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)	—
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)	—
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 (2.3–28)	2.7 (2.4–3.0)	2.5 (2.2–2.8)	↓

(a) The direction and type of change from 2007–08 to 2014–15 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2014–15 compared with 2007–08; ↑/↓ indicates a marginally significant change in 2014–15 compared with 2007–08; — indicates there was no significant change in 2014–15 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) The risk factors for an adult included being: overweight or obese, a daily smoker or an at-risk drinker.

Note: CI – confidence interval.

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Abbreviations

ACE	angiotensin-converting enzyme
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)
CT	computerised tomography
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
LCL	lower confidence limit
MBS	Medicare Benefits Schedule
OTC	over-the-counter (medications advised for over-the-counter purchase)
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
n	number
N/A	not applicable
NAv	not available
χ^2	chi-square
↑	indicates a statistically significant increase in 2014–15 when compared with the first year of data reported
↓	indicates a statistically significant decrease in 2014–15 when compared with the first year of data reported
↑	indicates a marginally significant increase in 2014–15 when compared with the first year of data reported
↓	indicates a marginally significant decrease in 2014–15 when compared with the first year of data reported
§	indicates a noteworthy change during the decade
—	indicates no significant change in 2014–15 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 (enc): 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 2014–15 recording form

BEACH (Bettering the Evaluation And Care of Health) - Morbidity and Treatment Survey - National DOC ID

Encounter Number	Date of encounter ___/___/___	Date of Birth ___/___/_ _ _ _	Sex M ☐ F ☐	Patient Postcode

	Yes	No
New Patient	☐	☐
Health Care/Benefits Card	☐	☐
Veterans Affairs Card	☐	☐
NESB	☐	☐
Aboriginal	☐	☐
Torres Strait Islander	☐	☐

PATIENT SEEN BY GP ☐
PATIENT NOT SEEN BY GP ☐
Medicare Item Nos: (if applicable) Home visit (not RACF) ☐
1. ____ Workers comp paid ☐
2. ____ Other paid ☐
3. ____ No charge ☐

START Time ___ : ___ AM / PM (please circle)

Patient Reasons for Encounter
1.
2.
3.

Diagnosis/ Problem ①: Problem Status New ☐ Old ☐

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

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

Diagnosis/ Problem ②: Problem Status New ☐ Old ☐

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

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

Diagnosis/ Problem ③: Problem Status New ☐ Old ☐

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

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

Diagnosis/ Problem ④: Problem Status New ☐ Old ☐

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

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

NEW REFERRALS, ADMISSIONS Problem(s)
1. ____ 1 2 3 4
2. ____ 1 2 3 4

IMAGING/Other tests Body site Problem(s)
1. ____ - ____ 1 2 3 4
2. ____ - ____ 1 2 3 4
3. ____ - ____ 1 2 3 4

PATHOLOGY Problem(s)
1. ____ 1 2 3 4
2. ____ 1 2 3 4
3. ____ 1 2 3 4

PATHOLOGY (cont) Problem(s)
4. ____ 1 2 3 4
5. ____ 1 2 3 4

Patient reported
Height: ___ cm
Weight: ___ kg

Approx. how many times has this patient seen any GP in the past 12 months (including today)? ___

To the patient if 18+: Which best describes your smoking status?
Smoke daily ☐
Smoke occasionally ☐
Previous smoker ☐
Never smoked ☐

To the patient if 18+: 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 ☐

How many 'standard' drinks do you have on a typical day when you are drinking? ___

How often do you have 6 or more standard drinks on one occasion?
Never ☐
Less than monthly ☐
Monthly ☐
Weekly ☐
Daily or almost daily ☐

FINISH Time ___ : ___ AM / PM (please circle)

BA17

Appendix 2: GP characteristics questionnaire, 2014–15

THE UNIVERSITY OF SYDNEY

GP profile

Family Medicine Research Centre

Doctor Identification Number | | | | | |

Please answer the following: a) 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 the computer at your major practice? ..... **Yes / No**
   If '**yes**', which clinical software is used? *(specify)* _____
   Please tick to indicate which functions of the computer/ clinical software you use
   Active medical records: ☐ Completely paperless ☐ Combination of computer and paper ☐ Paper only
   Prescribing: ☐ Electronic prescribing (ePrescribing online) ☐ Print scripts ☐ Paper only (handwritten)
   Other: ☐ Internet ☐ Email
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

b) ABOUT YOUR MAJOR PRACTICE

13. Postcode? .....
14. Which Medicare Local? _____
15. Is the practice accredited? ..... **Yes / No**
16. 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		
(c) Nurse practitioners		
(d) Aboriginal health workers ...		

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

(Tick all that apply)	In the practice	In the building or within 50 metres
Physiotherapist	☐	☐
Psychologist	☐	☐
Dietitian	☐	☐
Podiatrist	☐	☐
Pathology collection centre/lab ..	☐	☐
Imaging	☐	☐
Specialist(s) *(specify)*: _____	☐	☐
_____	☐	☐
Other *(specify)*: _____	☐	☐
NONE	☐	☐

18. 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.

FMRC, PO Box 533, Westmead Hospital, Wentworthville, 2145.
GP17(V1) Ph: 02 9845 8151 fax: 02 9845 8155 email: beach@fmrc.org.au Web: sydney.edu.au/medicine/fmrc/

Appendix 3: Patient information card, 2014–15

THE UNIVERSITY OF SYDNEY

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

(page 1 / 2)

FMRC, Acacia House, Westmead Hospital, PO Box 533,WENTWORTHVILLE, 2145.
Ph: 02 9845 8151 fax: 02 9845 8155 email: clare.bayram@sydney.edu.au Web: http://sydney.edu.au/medicine/fmrc/

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 2014–2015 are:

- The Australian Government Department of Health
- AstraZeneca Pty Ltd (Australia)
- CSL Biotherapies Pty Ltd
- Novartis Pharmaceuticals Australia Pty Ltd
- AbbVie Pty Ltd

BEACH is endorsed by the Royal Australian College of General Practitioners

BEACH is endorsed by the Australian Medical Association

AMA

FURTHER INFORMATION:

Family Medicine Research Centre
The University of Sydney
Acacia House, Westmead Hospital
Westmead 2145

Phone: (02) 9845 8151
Fax: (02) 9845 8155
Email: clare.bayram@sydney.edu.au
Web: http://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/2123/13765>.

This report highlights changes in general practice activity over the most recent decade (April 2005 to March 2015) measured by the University of Sydney's BEACH program, a continuous study of general practice activity in Australia.

Over this time, 9,773 general practitioners (GPs) provided details of 977,300 GP–patient encounters. The report highlights changes over the decade 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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BEACH

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