THE UNIVERSITY OF SYDNEY

A decade of Australian general practice activity

2004–05 to 2013–14

Family Medicine Research Centre

GENERAL PRACTICE SERIES **N°37**

GENERAL PRACTICE SERIES
Number 37

A decade of Australian general practice activity 2004–05 to 2013–14

BEACH
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, Timothy Chambers, Julie Gordon, Allan J Pollack

November 2014

Sydney University Press

Published 2014 by Sydney University Press
SYDNEY UNIVERSITY PRESS
University of Sydney Library
sydney.edu.au/sup

Sydney University Press
Fisher Library F03
University of Sydney NSW 2006 AUSTRALIA
Email: sup.info@sydney.edu.au

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

This publication is part of the General practice series based on results from the BEACH program conducted by the Family Medicine Research Centre. A complete list of the Centre's publications is available from the FMRC's website <sydney.edu.au/medicine/fmrc>.

ISSN 1442-3022
ISBN 978-1-74332-423-3 print
ISBN 978-1-74332-424-0 online

Suggested citation
Britt H, Miller GC, Henderson J, Bayram C, Valenti L, Harrison C, Pan Y, Wong C, Charles J, Chambers T, Gordon J, Pollack AJ. A decade of Australian general practice activity 2004–05 to 2013–14. General practice series no. 37. Sydney: Sydney University Press, 2014
Available at <purl.library.usyd.edu.au/sup/9781743324233>

Keywords
Australia, delivery of health care/statistics and numerical data, family practice/statistics and numerical data, general practice, health services utilization, healthcare surveys/methods.

Companion publication
Britt H, Miller GC, Henderson J, Bayram C, Harrison C, Valenti L, Wong C, Gordon J, Pollack AJ, Pan Y, Charles J. General practice activity in Australia 2013–14. General practice series no. 36. Sydney: Sydney University Press, 2014
Available at <purl.library.usyd.edu.au/sup/9781743324219>

Cover design by Miguel Yamin

Printed in Australia

Acknowledgments

The Family Medicine Research Centre wishes to thank the general practitioners who have participated in BEACH since it began in April 1998. This report would not have been possible without their valued cooperation and effort in providing the data. We also thank the following organisations for their financial support and their contribution to the ongoing development of the BEACH program since it began:

- Australian Government Department of Health (1998–2004, 2007–2014)
- AstraZeneca Pty Ltd (Australia) (1998–2014)
- Novartis Pharmaceuticals Australia Pty Ltd (2009–2014)
- bioCSL (Australia) Pty Ltd (2010–2014)
- Merck, Sharp and Dohme (Australia) Pty Ltd (2002–2013)
- Pfizer Australia (2003–2013)
- GlaxoSmithKline Australia Pty Ltd (2010–2012)
- Sanofi-Aventis Australia Pty Ltd (2006–2012)
- Bayer Australia Ltd (2010–2011)
- Janssen-Cilag Pty Ltd (2000–2010)
- Abbott Australasia Pty Ltd (2006–2010)
- Wyeth Australia Pty Ltd (2008–2010)
- National Prescribing Service Ltd (2005–2009, 2012–2013)
- Roche Products Pty Ltd (1998–2006)

Some financial support for the program was also provided by:

- Australian Government Department of Veterans' Affairs (2004–2014)
- The Office of the Australian Safety and Compensation Council, Department of Employment and Workplace Relations (2004–2006).

We acknowledge the support of the Royal Australian College of General Practitioners, the Australian Medical Association, the Australian General Practice Network, the Australian College of Rural and Remote Medicine, and the Consumers Health Forum, and the contribution of their representatives to the BEACH Advisory Board.

We thank Carmen Wong and Clare Bayram for their contribution in editing this report, Timothy Chambers for his IT support, Denise Barratt and Gervaise Woods for their administrative support. We recognise the valuable contribution of the general practitioner recruitment staff (Errol Henderson, Jan Fitzgerald, David Went and Alison Evans) and data entry staff (Julia Leahy, Michelle Lai, Natalie Taylor, Prableen Kaur, Heather Oesterheld, Nathan Cross, Lauren Nicola and Madeleine Chan) and the contribution of past members of the BEACH team. We appreciate the cooperation of the Australian Government Department of Health in regularly supplying general practitioner random samples and national Medicare statistics.

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Summary

Over the past decade, the population of Australia rose by 15% between June 2004 and June 2013 and the proportion of the population aged 65 years and over increased by 27%. Population ageing is projected to have significant implications for health.

General practitioners (GPs) are usually the first port of call in the Australian healthcare system, generally receiving payment on a fee-for-service basis. There are no formal patient lists or registration. A universal medical insurance scheme (managed by Medicare Australia) covers all, or part of a person's costs for a GP visit.

In the April 2013 to March 2014 year, about 85.2% of the Australian population claimed at least one GP service from Medicare (personal communication, Department of Health [DoH], August 2014). In the same period, Medicare paid rebates for about 133.4 million claimed general practice service items (excluding practice nurse items),[1] 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 2.57 million GP–patient encounters per week.

A decade earlier, in the 2004–05 financial year, total Medicare claims for GP–patient encounters numbered 98.2 million, an average attendance rate of 4.8 per head of population.[2]

Administrative statistics provide information about frequencies and costs of visits claimed from GP services and some prescribed pharmaceuticals. BEACH (Bettering the Evaluation and Care of Health) gives us an understanding of the content of encounters and the services and treatments GPs provide.

BEACH is a continuous national study of general practice activity in which ever-changing random samples of about 1,000 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 is now in its 17th year.

This book investigates results of each of 10 years of data to identify changes that occurred over the decade 2004–05 to 2013–14. The report is based on information from 9,731 participating GPs, almost one million GP–patient encounters.

The GP participants and their practices (Chapter 4)

Between 2004–05 and 2013–14:

- reflecting changes in the age and sex distributions of the recognised GP workforce, females made up an increasing proportion of participants (32% in 2004–05 to 43% in 2013–14), as did the proportion aged 55 years and over (from 34% to 48%)
- average hours in direct patient care decreased—from 40 hours to 37 hours per week, resulting from a decreased proportion working more than 40 hours (from 42% to 31%)
- the proportion of GP participants holding Fellowship of the Royal Australian College of General Practitioners (RACGP) increased from 42% to 56%
- the proportion of participants in solo practice decreased from 12% to 9%, and the proportion working in smaller practices (of 2–4 individual GPs) decreased from 36% to 23%. The proportion working in practices of 10 or more individuals nearly doubled, from 14% to 26%
- decreased proportions of GPs worked in practices that provide their own after-hours services (from 36% to 31%); and/or provided such care in cooperation with other practices (from 16% to 14%). The proportion using deputising services increased from 46% to 56%

- the proportion of GPs with a computer available at their major practice increased from 94% to 99%. Since first measured in 2004–05, the proportion of GPs indicating they use a computer to some extent increased from 89% to 98%.

The encounters (Chapter 5)

Over the decade, there was significant change in the average length of patient encounters claimable from the Medicare Benefits Scheme (MBS) or the Department of Veterans' Affairs (DVA). The mean length of consultation for all Medicare/DVA-claimable encounters increased significantly from 14.1 minutes to 14.8 minutes. The median consultation length increased from 12 to 13 minutes in the last year. The proportion of encounters claimable under chronic disease management items, GP mental healthcare items and health assessments all significantly increased.

The patients at encounters (Chapter 6)

The proportion of the Australian population that was aged 65 years and over increased from 12.8% in 2004 to 14.4% in 2013. Over the same period, the proportion of BEACH encounters with patients aged 65 years and over increased from 26.5% to 32.5%. When extrapolated, this change (together with the increased number of encounters nationally) means that nationally in 2013–14, there were 17.3 million more encounters with older patients than in 2004–05.

There was a significant increase in the number of reasons for encounter (RFEs) recorded per 100 encounters, from 149.6 in 2004–05 to 155.3 in 2013–14, with a decrease in rates of presentation of symptoms/complaints, and increased presentations for tests and test results.

The proportion of encounters that were with patients:

- new to the practice decreased from 9.1% in 2004–05 to 6.6% in 2013–14
- holding a Commonwealth concession card decreased from 47.5% to 43.5%
- holding a Repatriation health card decreased by one-third (3.6% to 2.2%).

Between 2004–05 and 2013–14:

- RFEs of a psychological nature increased by about 20%
- RFEs relating to the blood and blood-forming organs increased by about 40%. This is probably linked to an increase in international normalised ratio (INR) testing (see Chapter 10).
- RFEs relating to neurological and ear problems, both decreased by about 15%
- the rate of eye problem RFEs, decreased by about one-quarter over the decade.

Problems managed at encounters (Chapter 7)

GPs managed significantly more problems at encounters in 2013–14 (158 per 100 encounters) than in 2004–05 (146 per 100). This suggests there were 68 million more problems managed at GP–patient encounters in Australia in 2013–14 than in 2004–05.

In all years 2004–05 to 2013–14, the most frequently managed problems were hypertension, check-up, immunisation/vaccination and upper respiratory tract infection. Statistically significant increases occurred in management rates of general check-up, depression, diabetes, prescriptions, gastro-oesophageal reflux disease, anxiety, test results, atrial fibrillation/flutter, administrative procedure, vitamin/nutritional deficiency, abnormal test results, bursitis/tendonitis/synovitis, pregnancy, and lacerations/cuts. A marginal increase in the management rate of chronic obstructive pulmonary disease was also present.

The management rate of chronic conditions rose from 52 per 100 encounters in 2004–05, to 56 per 100 in 2013–14, this change accounting for about 35% of the increase in problems

managed overall. This may be partly attributed to the changed age distribution of presenting patients. The most common chronic problems managed were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis and lipid disorders.

There were significant increases in management rates of non-gestational diabetes (equating to 2.5 million more contacts in 2013–14 than in 2004–05); depressive disorder (2.1 million more); oesophageal disease (1.4 million more); atrial fibrillation/flutter (1.2 million more); hypothyroidism/myxoedema; shoulder syndrome; and unspecified chronic pain.

Medications (Chapter 9)

Between 2004–05 and 2013–14, there was a significant decrease in total medication and prescribed medication rates per 100 problems managed. There was no significant change as a rate per 100 encounters, suggesting that the GPs are now managing more problems at each encounter but prescribing fewer medications in the management of these problems.

This hypothesis aligns with the increased attendance rate reported in Chapter 1 and with the increase in the number of medications given with five repeats.

There were significant increases in the GP prescribing rate per 100 problems managed for:

- psychoanaleptics, lipid modifying agents, drugs for acid-related disorders, and corticosteroids for systemic use
- individual medications including the opioid oxycodone, the proton pump inhibitors esomeprazole and pantoprazole, the lipid modifying agent rosuvastatin, and the angiontensin-converting enzyme (ACE) inhibitor perindopril.

There were significant decreases in the prescribing rate per 100 problems managed of:

- systemic antibacterials, obstructive airway disease drugs, anti-inflammatory and antirheumatic products, dermatological corticosteroids, sex hormones and modulators of the genital system, calcium channel blockers, ophthalmologicals, and vaccines
- some individual medications including: the penicillin amoxycillin, the analgesic combination paracetamol/codeine, the macrolide roxithromycin, and the contraceptive combination levonorgestrel/ethinyloestradiol.

There was a significant decrease in the proportion of prescribed medications with no repeats, or one, three or four repeats ordered. On the other hand, the proportion of prescriptions given with five repeats increased from 28% in 2004–05 to 38% in 2013–14.

The rate of GP-supplied medications per 100 problems managed rose marginally from 6 per 100 in 2004–05 to 7 per 100 in 2013–14. Many were vaccines, and the GP supply rate of some individual vaccines rose significantly.

There was a significant decrease in the rate per 100 problems managed for total advised over-the-counter medications. Individual medication rates largely remained steady over the decade, except for vitamin D3 (cholecalciferol), which showed a significant increase in the rate at which it was advised.

Clinical treatments (Chapter 10)

There was a significant decrease in the rate at which clinical treatments were provided per 100 problems managed when comparing 2004–05 and 2013–14, however the change over the decade was not linear.

Following the introduction of practice nurse (PN) and Aboriginal health worker (AHW) Medicare item numbers in 2004, there was a sudden and significant decrease in the rate at which clinical treatments were provided between 2004–05 and 2005–06. From 2006–07 onwards, the rate remained steady, and in 2013–14 clinical treatments were still provided at

a significantly lower rate than 10 years earlier (24 clinical treatments per 100 problems managed in 2013–14).

This pattern of change was reflected in the rate at which counselling/advice about nutrition/weight and exercise were provided. The rates of these clinical treatments significantly decreased in 2005–06, but have since been steady, remaining significantly lower in 2013–14 than 10 years earlier. Considering the rise in the prevalence of overweight and obesity among Australian general practice patients, it is hoped that the decrease since 2005–06 reflects a shift of this role to PNs or other allied health professionals.

Procedures (Chapter 10)

For every 100 GP–patient encounters in 2004–05, one or more procedures were used in the management of 14.3 problems. This significantly increased over time, reaching 17.7 problems per 100 encounters in 2013–14 (Table 10.4). Extrapolation of this result suggests about 9.6 million more problems were managed with a procedure in 2013–14 than a decade earlier.

The overall increase was reflected in increases in the rate of dressing/pressure/compression/tamponade, local injection/infiltration, and INR tests (per 100 problems). There was also an increase in the likelihood of a procedure being undertaken in the management of an individual problem, rising from 14.3 per 100 encounters in 2004–05 to 17.7 per 100 in 2013–14. This increase was reflected in significant increases in the rate of procedures for the management of laceration/cut, general check-up, atrial fibrillation/flutter, vitamin/nutritional deficiency, skin symptom/complaint and depression.

Practice nurse/Aboriginal health worker involvement (PN/AHW) (Chapter 10)

As a proportion of all encounters, those involving a PN/AHW doubled from 4.2% in 2005–06 to 9.0% in 2009–10. The rate has remained steady since this time, with 8.0% of encounter in 2013–14 involving a PN/AHW.

The proportion of problems managed with a PN/AHW involvement also rose from 2.8% in 2005–06 to 6.1% in 2009–10, and then remained steady at 5.0% in 2011–12 and 2012–13.

In 2005–06, GPs recorded at least one PN/AHW Medicare item number at 39% of encounters with recorded PN/AHW activity. This increased to 46% by 2009–10, and then decreased to 27% in 2011–12. After the change in practice nurse funding structure, a PN/AHW item number was claimed at only 4%of PN/AHW encounters in 2012–13 and 5% in 2013–14.

The rate at which procedures (including tests) were undertaken by PNs/AHWs at GP–patient encounters more than doubled, from 4.0 per 100 encounters in 2005–06 to 9.2 per 100 in 2009–10, then decreased in 2011–12 (7.2 per 100), remaining steady thereafter. While their provision of clinical treatments (such as advice and health education) remained infrequent at GP–patient encounters, there was a significant increase over the study period, from 0.2 clinical treatments per 100 encounters in 2005–06 to 1.1 per 100 in 2013–14.

Referrals (Chapter 11)

Over the 10 years, there were significant increases in the likelihood that an encounter would result in one or more referrals (from 10.9% to 14.4%) and that a problem being managed at encounter would be referred (from 7.9% to 9.8%).

Overall, referrals increased significantly, from 11.5 per 100 encounters in 2004–05 to 15.7 per 100 in 2013–14. Extrapolation of this change suggests there were about 9.7 million more GP referrals nationally in 2013–14 than in 2004–05, including about 5.1 million more referrals to medical specialists and 3.9 million more to allied health services.

This was largely due to increased referral rates to medical specialists and to allied health professionals. The rate of referral to medical specialists increased from 5.3 per 100 problems managed in 2004–05 to 6.0 per 100 in 2013–14. There were marginal increases in referrals rates per 100 problems to orthopaedic surgeons, cardiologists and gastroenterologists; and marginal decreases in referrals to surgeons and ophthalmologists.

The rate of referral to allied health services increased from 1.9 per 100 problems managed in 2004–05 to 3.1 per 100 in 2013–14, and increases were highest among referrals to psychologists and podiatrists/chiropodists, with marginally significant increases in referral rates to physiotherapists and dietitians/nutritionists.

Tests and investigations (Chapter 12)

Between 2004–05 and 2013–14:

- there was a significant increase in the proportion of problems managed for which pathology (from 12% to 14%) or imaging (5% to 6%) was ordered
- results suggest that nationally there were about 10 million more GP–patient encounters involving pathology orders and 5.2 million more involving imaging requests
- the number of pathology tests ordered increased from 25.2 to 31.0 tests/batteries of tests per 100 problems managed
- the largest increase was in orders for chemical pathology, (from 14.0 to 18.1 per 100 problems managed)
- haematology orders increased at a slower rate, (from 4.8 to 5.4 per 100 problems)
- imaging test orders increased significantly from 5.7 to 6.9 per 100 problems: orders for ultrasound imaging showed the largest growth; orders for magnetic resonance imaging also increased significantly and orders for computerised tomography increased marginally.

Substudies of patient risk factors (Chapter 13)

Body mass index:
Adults (*n* = 30,000–32,000 per year): prevalence of overweight/obesity in sampled adults (aged 18+ years) increased significantly from 57% in 2004–05 to 63% in 2013–14. The prevalence of obesity rose from 22% in 2005–06 to 27% in 2010–11 and then remained static. The increase was apparent among both male and female patients.

Children (*n* = 3,000–4,000 per year): prevalence of overweight and obesity among sampled children (aged 2–17 years) did not change significantly between 2004–05 and 2013–14 (around 10% and 18% respectively), this stable relationship was noted among both sexes.

Smoking (*n* = 31,000–34,000 per year): among sampled adults (aged 18+ years), there were significant decreases in the prevalence of current daily smoking (from 18% to 14%) and occasional smoking (from 4% to 2%) over the decade. Daily smoking was significantly more common among males than females in all years.

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 2004–05 to 23% in 2013–14. The significant decrease in at-risk levels of alcohol consumption and increase in non-drinkers was apparent among both male and female patients.

Risk profile in adults (*n* = 29,000–32,000 per year): there was a significant increase in the proportion of adults (aged 18+ years) with one risk factor (from 49% in 2004–05 to 53% in 2013–14) and a significant decrease in the proportion with two or three risk factors (from 20% to 18%, and 4% to 3% respectively).

1 Introduction

This report is the 37th 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 2004–05 to 2013–14 inclusive.

Released in parallel with this report is a more detailed report of results for 2013–14 in the BEACH program, *General practice activity in Australia 2013–14*,[3] available at <purl.library.usyd.edu.au/sup/9781743324219>.

BEACH is a continuous national study of general practice activity in which ever-changing random samples of about 1,000 general practitioners (GPs) participate in a year. Each participating GP records details of 100 consecutive GP–patient encounters with consenting patients. The BEACH program is conducted the Family Medicine Research Centre (FMRC) at the University of Sydney. The program is supported financially by government, and private industry (see Acknowledgments).

The BEACH program began in April 1998 and was the culmination of about 20 years research and development work at the University of Sydney. At the end of its 16th year (March 2014), the BEACH database included records for almost 1.6 million GP–patient encounters from 15,759 GP participants, representing 9,950 individual GPs.

From April 1998 to March 2011, BEACH was conducted by the FMRC, University of Sydney, in collaboration with the Australian Institute of Health and Welfare (AIHW), under the AIHW Act. Since April 2011, it has been conducted by the FMRC. BEACH is currently supported financially by government and private industry (see Acknowledgments).

This book investigates results of each of 10 years of data to identify changes that occurred over the decade 2004–05 to 2013–14. The report is based on information about 1 million GP–patient encounters provided by 9,731 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 2004–05 and 2013–14 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 15% between June 2004 (20.1 million)[4] and June 2013 (23.1 million).[5] Over the same period:

- the proportion of the population aged 65 years and over increased by 27%, from 2.6 million people[4] to 3.3 million[5]
- the number of Australians aged 85 years and over nearly doubled, from 298,000 people[4] to 440,000.[5]

Over the next several decades, population ageing is projected to have significant implications for Australia, including for health.[6] As life expectancy improves, 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 2011–12, Australia's health expenditure was $140.2 billion,[7] $52.9 billion (60.6%) more than in 2004–05 ($87.3 billion).[8]
- The average amount spent per head of population was $6,230 in 2011–12,[7] increasing from $4,319 in 2004–05.[8]
- However, health expenditure as a proportion of gross domestic product (GDP) decreased, from 9.8% in 2011–12[7], compared with 9.5% in 2004–05.[8]
- Governments funded more than two-thirds of health costs throughout the decade: 69.7% in 2011–12,[7] compared with 68.2% in 2004–05.[8]

General practice services

- The amount spent on general practice services increased from $3.3 billion in the 2004–05 financial year[9] to $6.3 billion in the 2013–14 financial year.[10]
- Changes in the number of practising GPs in Australia over the last decade are difficult to calculate due to changes in the methods used to count GPs. In 2004, there were 22,011 primary care practitioners in Australia (including but not limited to GPs),[11] while in 2012 there were 25,958 GPs.[12]
- In the April 2013 to March 2014 year, about 85.2% of the Australian population claimed at least one GP service from Medicare (personal communication, Department of Health [DoH], August 2014). In the same period, Medicare paid rebates for about 133.4 million claimed general practice service items (excluding practice nurse items),[1] 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 2.57 million GP–patient encounters per week.

  A decade earlier, in the 2004–05 financial year, total Medicare claims for GP–patient encounters numbered 98.2 million, an average attendance rate of 4.8 per head of population.[2]

Medicare statistics provide information about 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 2013–14* (Sections 1.2 and 1.3).[3]

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 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*[13]
- April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*[14]
- August 2006 to March 2013 were published in each of the BEACH annual reports[15-21]
- April 2013 to March 2014 are included in Chapter 14 of *General practice activity in Australia 2013–14*.[3]

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 2013–14 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, 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 boxes).
- **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 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 (such as upper respiratory tract infection) managed (see Section 6.3).

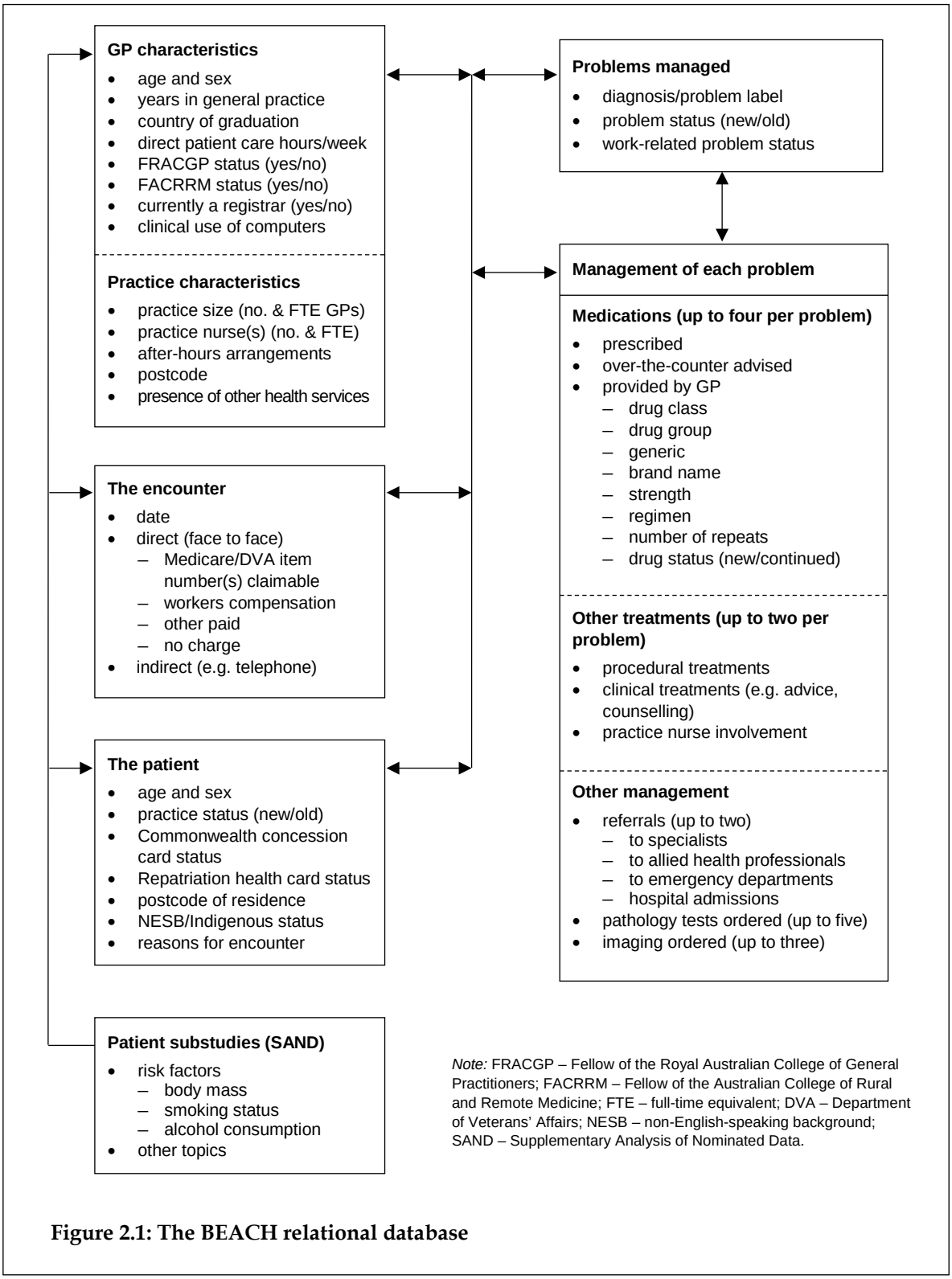


Figure 2.1: The BEACH relational database

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*[13]
- from April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*[14]
- conducted between August 2006 and March 2013 have been published in each of the general practice activity annual reports[15-21]
- conducted in the 2013–14 BEACH year are provided in Chapter 14 of the companion report, *General practice activity in Australia 2013–14*.[3]

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 2013–14 BEACH data was conducted with Statistical Analysis System (SAS) version 9.3.[22] When originally published, data from 2001–02 to 2004–05 were analysed using SAS version 6.12[23] (with additional programming to adjust for the cluster sample study design). Previously published data from 2005–06 to 2010–11 were analysed using SAS version 9.1.3.[24] At each change in SAS version, all past data have been re-analysed. This has resulted in slightly tighter confidence intervals and minor variations in point estimates (of up to 0.1) when data published in this report are compared with data published in earlier annual reports.

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.[22]

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,[25-27] 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 these 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 the 10 years from 2004–05 to 2013–14, patient reasons for encounter and problems managed have been reported as rates per 100 encounters. In earlier years, rates per 100 encounters were also 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. 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.

In measuring changes over time, the 2013–14 results are compared with those from 2004–05 wherever possible. However, as in any long-term research program, changes occur over the years. For example, practice nurse activity data were not collected until 2005–06, so the changes are only considered between 2005–06 and 2013–14.

Each table includes the most frequent events occurring in 2013–14, 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 2013–14. In general, results are presented in decreasing 2013–14 order of frequency.

The direction and type of change between 2004–05 and 2013–14 is indicated for each result in the far right column of the tables:

- ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 when compared with the first year of data reported
- ↑/↓ indicates a marginally significant change in 2013–14 when compared with the first year of data reported
- — indicates there was no significant change in 2013–14 when compared with the first year of data reported
- and § 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 2004–05 to 2013–14 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 2004–05 by 100, and then multiply by the total number of general practitioner service items claimed through Medicare in 2004–05 (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 2004–05
- repeat the process using data from 2013–14.

The difference between the two estimates gives the estimated national change in the frequency of that event between 2004–05 and 2013–14. 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 2013–14, when compared with (usually) 2004–05.

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 service items 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 2004–05 to 2013–14.

Table 2.1: Rounded number of general practice professional services claimed from Medicare Australia each financial year, 2004–05 to 2013–14 (million)

	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14[(a)]
Rounded number of Medicare GP items of service claimed	98.2	101.1	103.4	109.5	113.0	116.6	119.2	123.9	126.8	133.4

(a) Medicare data for the 2013–14 year included data from the April 2013 to March 2014 quarters because the 2013–14 financial year data were not available at the time of preparation of this report.

Source: Medicare Statistics.[1]

Examples of extrapolation:

Example 1: Change in the number of GP referrals to allied health services nationally (with 95% confidence intervals)

There was a significant increase in the number of referrals to allied health services at encounter, from 2.7 (95% CI: 2.5–2.9) per 100 encounters in 2004–05 to 4.9 (95% CI: 4.7–5.2) per 100 in 2013–14 (see Table 5.1). The calculation used to extrapolate the effect of this change across Australia is:

In 2004–05 (2.7/100) x 98.2 million = 2.65 million such referrals nationally

- Lower confidence interval: 2.5/100 x 98.2 million = possibly as few as 2.46 million
- Upper confidence interval: 2.9/100 x 98.2 million = possibly as many as 2.85 million

In 2013–14, (4.9/100) x 133.4 million = 6.54 million such referrals nationally

- Lower confidence interval: 4.7/100 x 133.4 million = possibly as few as 6.27 million

- Upper confidence interval: 5.2/100 x 133.4 million = possibly as many as 6.94 million.

This suggests there were 3.89 million (6.54 million minus 2.65 million) more GP referrals to allied health services made at GP–patient encounters in Australia in 2013–14 than in 2004–05. This is our best estimate of the change, but we are 95% confident that the true result is between 3.81 and 4.10 million additional such referrals in 2013–14.

This is the result of the compound effect of the increase in the number of referrals to allied health services being given by GPs at encounters **plus** the increased number of visits over the decade across Australia.

Example 2: Change in the number of GP–patient encounters at which osteoarthritis was managed nationally (with 95% confidence intervals)

The management rate of osteoarthritis did not change between 2004–05 (2.8 per 100 encounters, 95% CI: 2.6–3.0) and 2013–14 (2.9 per 100, 95% CI: 2.7–3.1).

- For 2004–05, our best estimate for the total national encounters involving management of osteoarthritis is: 2.75 million [(2.8/100) x 98.2 million], but we are 95% confident that the true number lies between 2.55 million [(2.6/100) x 98.2 million] and 2.95 million [(3.0/100) x 98.2 million].
- For 2013–14, our best estimate for the total national encounters involving osteoarthritis is: 3.87 million times [(2.9/100) x 133.4 million], but we are 95% confident that the true number lies between 3.60 million [(2.7/100) x 133.4 million] and 4.14 million [(3.1/100) x 133.4 million].

Therefore, we estimate that even though the GP management rate of osteoarthritis did not change, because of the increased number of attendances nationally in 2013–14 osteoarthritis was managed at 1.12 million (95% CI: 1.05 million–1.19 million) more GP–patient encounters than it was in 2004–05.

Considerations and limitations in extrapolations

The extrapolations to the total 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 GP Medicare items claimed, 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 (e.g. GPs can record up to two referrals per encounter), the extrapolation represents the number of occurrences of that event nationally (e.g. number of referrals nationally), rather than the number of encounters nationally where at least one event (e.g. referral) occurred.

2.10 Changes to data elements and reporting methods

Some changes in data elements and reporting methods have occurred since the BEACH study began in April 1998.

Two changes were made to the BEACH form from 2005–06 onwards to capture practice nurse activity associated with the GP–patient consultations. From 2005–06 onwards:

- GPs could record multiple (up to three) Medicare item numbers
- in the 'other treatments' section, for each problem managed, the GP was asked to tick the practice nurse box if the treatment recorded was provided by the practice nurse rather than by the GP. If the box was not ticked, the research team assumed that the GP provided the recorded treatment.

These changes have implications for the reporting of Medicare/DVA-claimable encounters (Chapter 5), other treatments (Chapter 10) and practice nurse activity (Chapter 10).

Medicare/DVA-claimable encounters

For the first 7 years of the BEACH program (1998–99 to 2004–05), where a Medicare item number was claimable for the encounter, the GP was instructed to record only one item number. Where multiple item numbers (for example, an item for 'standard surgery consultation' and a procedural item number) were claimable for an encounter, the GP was instructed to record the lower of these (usually an A1 item number). For reporting purposes Medicare-claimable encounters were broken down according to the item number recorded by the GP as claimable (either through Medicare or through DVA) for the encounter.

In this report, the Medicare/DVA-claimable encounters count only one item number per Medicare/DVA-claimable encounter for comparability with previous years (see Chapter 5). Practice nurse Medicare-claimable encounters are not reported in Chapter 5.

The selection of one item number was done on a priority basis: consultation item numbers override incentive item numbers, which override procedural item numbers, which override other Medicare item numbers.

Practice nurse activity

The research team began to capture practice nurse activity (in 2005–06) due to the introduction of four new MBS item numbers in November 2004, which covered some selected activities done by a practice nurse on behalf of a medical practitioner.[28]

The primary aim of BEACH is to describe general practice activity. Before 2005–06, 'general practice activity' was described in terms of GP–patient encounters. However, the introduction of the practice nurse item numbers meant that, if we had no record of practice nurse activity associated with the GP–patient encounter, the content of the consultation was not fully described.

Over the years, new PN item numbers were added to the MBS and some items were broadened to include work done by Aboriginal health workers (AHWs). In past years we have reported the results referring to PNs alone. However, a few GPs indicated (of their own accord) that the recorded action was done by an AHW rather than a PN. This information is now included, and refers to work undertaken at encounters by PNs and AHWs in conjunction with the GPs, though the vast majority will have been done by PNs. There is a

limitation to this approach. Few GPs specifically indicated that the work was done by an AHW. Others may have thought that because the question referred specifically to PNs, recording of work done by AHWs was not specifically requested. These results therefore have the potential to be an underestimate of the work undertaken at GP–patient encounters by PNs and AHWs.

Chapter 10 provides a breakdown of the PN/AHW Medicare items claimed, the morbidity managed with the assistance of the PN/AHW, and the other treatments given by the PN/AHW as recorded by the GP participants from 2005–06 to 2013–14.

These results do not include activities done by the PN or AHW that were performed independently of the recorded encounter.

Other treatments

In Chapter 10 'Other treatments', all recorded clinical and procedural treatments are included, irrespective of whether they were provided by the GP, the PN or AHW. The exception is Section 10.3, where those activities reported by the GP as done by a PN or AHW are analysed separately.

2.11 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):[29]

- 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,[30] and is the declared national standard in Australia for reporting of health data from general practice and patient self-reported health information.[31]

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[32] have been used in this report.

The ICPC-2 is an excellent epidemiological tool. The diagnostic and symptom rubrics have been selected for inclusion on the basis of their relative frequency in primary care settings, or

because of their relative importance in describing the health of the community. ICPC has about 1,370 rubrics and these are sufficient for meaningful analyses. However, reliability of data entry, using ICPC-2 alone, requires a thorough knowledge of the classification, for correct classification of a concept to be ensured.

In 1995, recognising a need for a coding and classification system for general practice electronic health records, the Family Medicine Research Centre (FMRC) (then Unit) developed an extended clinical terminology classified according to the ICPC, now called ICPC-2 PLUS.[33] 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),[34] *A comparison of country and metropolitan general practice 1990–91* (51,277 encounters),[35] *The Morbidity and Therapeutic Index 1992–1998* (a clinical audit tool that was available to GPs) (approximately 400,000 encounters), and *BEACH 1998–2014* (about 1.5 million encounters). Together, these make up about 2.5 to 3 million encounter records, involving about 4 million free text descriptions of problems managed and a further 4 million 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/2123/11883>.

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, 'hypertension, unspecified' 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[36] 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 provided 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. The groups are marked with an asterisk, and inclusions are provided 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)[37] classification, which is the Australian standard for classifying medications at the generic level.[31] 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.

- When reporting annual results for pharmaceutical data, the CAPS database is used in tables of the 'most frequent medications' (Tables 9.2 to 9.4).
- When reporting the annual results for pharmaceuticals in terms of the ATC hierarchy (Table 9.1), ATC levels 1, 3, and 5 are used. The reader should be aware that the results reported at the generic level (Level 5) may differ slightly from those reported in the 'most frequent medication' tables for the reasons described above.

Practice nurse and Aboriginal health worker activities associated with the encounter

The BEACH form was changed in 2005–06 to capture 'other treatments' performed by practice nurses (PNs) following the introduction of MBS item numbers for defined PN activities. GPs were asked to tick the 'practice nurse' box if a treatment was provided by the PN. If not ticked, it was assumed that the GP provided the 'other treatment'.

Over the years, new PN item numbers were added to the MBS and some items were broadened to include work done by Aboriginal health workers (AHWs). From 2005–06 to 2010–11, we reported the results referring to PNs alone. As some GPs indicated (of their own accord) that the recorded action was done by an AHW rather than a PN, this information is now included. In this report we refer to work undertaken at encounters by PNs and AHWs in conjunction with the GPs, though the vast majority will have been done by PNs. There is a limitation to this approach. Few GPs specifically indicated that the work was done by an AHW. Others may have considered the question referred specifically to PNs, and therefore did not record work done by AHWs. These results therefore have the potential to be an underestimate of the work undertaken at GP–patient encounters by AHWs.

2.12 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.

2.13 Validity and reliability

A discussion of the reliability and validity of the BEACH program has been published elsewhere.[38] This section touches on 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,[39] the degree to which GP-reported patient RFEs and problems managed accurately reflect those recalled by the patient,[40] and reliability of secondary coding of RFEs[41] and problems managed.[34] The validity of ICPC as a tool with which to classify the data has also been investigated in earlier work.[42]

However, the question of the extent to which the GP-recorded data are a reliable and valid reflection of the content of the encounter must also be considered. In many primary care consultations, a clear pathophysiological diagnosis is not reached. Bentsen[43] and Barsky[44] suggest that a firm and clear diagnosis is not apparent in about half of GPs' consultations, and others suggest the proportion may be even greater.[45] Further, studies of general

ambulatory medical practice have shown that a large number of patients presenting to a primary care practitioner are without a serious physical disorder.[46,47] As a result, it is often necessary for a practitioner to record a problem in terms of symptoms, signs, patient concerns, or the service that is requested, such as immunisation. For this reason, this report refers to patient 'problems' rather than 'diagnoses'.

A number of studies have demonstrated wide variance in the way a GP perceives the patient's RFE and the manner in which the GP describes the problem under management. Further, in a direct observational study of consultations via a one-way mirror, Bentsen demonstrated that practitioners differ in the way they labelled problems, and suggested that clinical experience may be an important influence on the identification of problems within the consultation.[43] Two other factors that might affect GPs' descriptions of patient RFEs have been identified: although individuals may select the same stimuli, some label each stimulus separately, whereas others cluster them under one label; and individuals differ in the number of stimuli they select (selective perception).[48]

The extent to which therapeutic decisions may influence the diagnostic label selected has also been discussed. Howie[49] and Anderson[46] argue that, while it is assumed that the diagnostic process used in general practice is one of symptom → diagnosis → management, the therapeutic method may well be selected on the basis of the symptom, and the diagnostic label chosen last. They suggest that the selection of the diagnostic label is therefore influenced by the management decision already made.

Alderson contends that to many practitioners 'diagnostic accuracy is only important to the extent that it will assist them in helping the patient'. He further suggests that if major symptoms are readily treatable, some practitioners may feel no need to define the problem in diagnostic terms.[50] Crombie identified 'enormous variability in the rates at which doctors perceive and record illnesses'. He was unable to account statistically for this variation by the effect of geography, age, sex or class differences in the practice populations.[51] Differences in the way male and female GPs label problems also appear to be independent of such influences.[52]

These problems are inherent in the nature of general practice. Knottnerus argues that the GP is confronted with a fundamentally different pattern of problems from the medical specialist, and often has to draw up general diagnostic hypotheses related to probability, severity and consequences.[53] Anderson suggests that morbidity statistics from family practice should be seen as 'a reflection of the physician's diagnostic opinions about the problems that patients bring to them rather than an unarguable statement of the problems managed'.[46]

While these findings regarding limitations in the reliability and validity of practitioner-recorded morbidity should be kept in mind, they apply equally to data drawn from health records, whether paper or electronic, as they do to active data collection methods.[54,55] There is as yet no more reliable method of gaining detailed data about morbidity and its management in general practice. Further, irrespective of the differences between individual GPs in labelling problems, morbidity data collected by GPs in active data collection methods have been shown to provide a reliable overview of the morbidity managed in general practice.[56]

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 analyses of the samples in 2013–14 can be found in Chapter 3 in *General practice activity in Australia 2013–14*.[3]

Table 3.1 shows the number of encounter records contained in each year of the BEACH program since April 2004, 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, 2004–05 to 2013–14 (final weighted data)

Variable	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	Total 10 years
General practitioners	953	1,017	930	953	1,011	988	958	984	978	959	9,731
Encounters	94,386	101,993	91,805	95,898	96,688	101,349	95,839	99,030	98,564	95,879	973,100
Reasons for encounter	141,215	153,309	138,434	146,696	151,282	157,071	149,005	153,218	152,278	148,880	1,502,844
Problems managed	137,330	149,088	136,333	145,078	149,462	155,373	146,141	152,286	152,517	151,675	1,515,832
Medications	95,816	106,493	93,193	98,439	102,737	108,001	100,817	106,007	101,065	98,394	1,004,719
Other treatments	51,632	44,504	41,011	49,130	49,048	53,243	50,235	53,395	53,163	54,104	516,320
Referrals & admissions	10,890	12,242	11,230	12,017	13,251	13,481	13,526	14,382	14,561	15,012	130,592
Pathology	34,652	39,358	38,963	41,375	44,066	45,594	43,313	46,544	46,398	47,035	464,947
Imaging	7,840	9,003	8,229	9,143	9,469	9,877	9,370	9,978	10,163	10,460	93,532

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 are employed (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 some, shorter periods.

In this chapter, statistical significance of change is tested with the X^2 (chi-square) statistic, with a decision level of $\alpha < 0.05$. More detailed analyses of the participating GPs in 2013–14 can be found in Chapter 4 in *General practice activity in Australia 2013–14*.[3]

Over the period 2004–05 to 2013–14, some trends emerged in the characteristics of GP BEACH participants (Table 4.1). The most noticeable changes over the 10 years are listed below and some are presented in Figure 4.1.

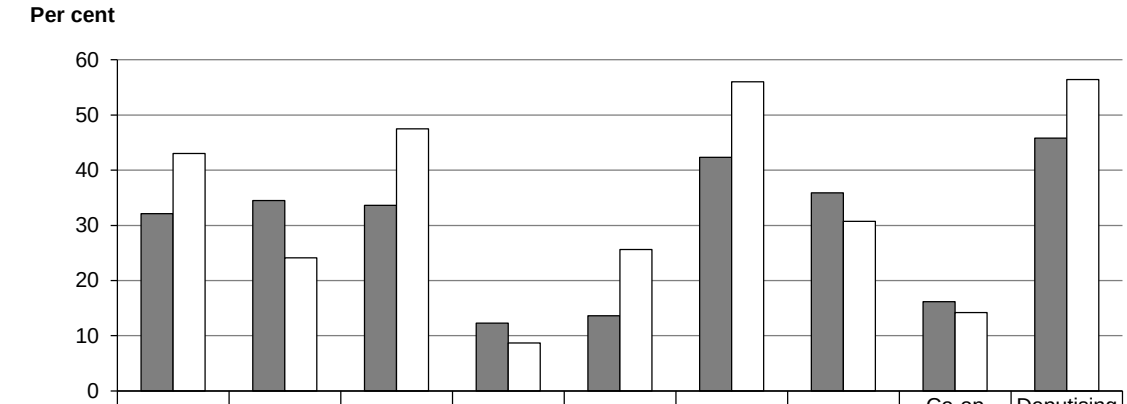
- The feminisation of the general practice workforce is reflected in the growing proportion of GP participants who are female. The proportion of female participants increased from 32.1% in 2004–05 to 43.0% in 2013–14. This change reflects change in the sex distribution of all recognised GPs claiming more than 375 general practice Medicare items of service in the previous quarter (34.0% in 2004–05[2] and 40.9% in 2013–14), 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).[18]
- From 2004–05 to 2013–14, there was a significant change in the age distribution of participants, with a decrease in the proportion aged 35–44 years (from 25.5% to 17.9%), and an increase in the proportion aged 55 years and over (from 33.6% to 47.5%). 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 25.2%[2] to 20.6%, and the proportion aged 55 years and over increased from 31.1%[2] to 42.8%. In BEACH, the mean age of GP participants in 2004–05, was 49.9 years (median of 49 years) while in 2013–14, it was 53.0 years (median of 54 years).
- The ageing workforce was reflected in the increasing proportion of GPs who had worked in general practice for 20 years or longer, from 51.3% in 2004–05 to 63.7% in 2013–14.
- There was a significant increase in the proportion of GPs working 21–40 hours per week in direct patient care (from 49.2% in 2004–05 to 58.2% in 2013–14), and a significant decrease in the proportion working 41–60 hours (37.9% in 2004–05 to 29.0% in 2013–14), the dramatic change occurring in 2009–10 (from 40.2% in 2008–09 to 30.8%). The proportion working more than 60 hours per week in direct patient care also steadily decreased (from 3.9% to 1.6%). When the last two results are combined, there was a decrease from 41.8% of participants working more than 40 hours per week in direct patient care in 2004–05 to 30.6% working these hours in 2013–14. There was a significant decrease in the mean number of hours spent in direct patient care from 39.8 hours in 2004–05 to 36.8 hours in 2013–14. This has implications for workforce planning.

- The proportion of GP participants holding Fellowship of the RACGP significantly increased, from 42.3% in 2004–05 to 56.0% in 2013–14. Since 1995, Fellowship of the RACGP has been mandatory for new clinicians entering general practice, so this change largely reflects the inclusion of new GPs into practice who hold FRACGP.
- There were no significant changes in the proportions of GPs currently in training programs or who had graduated from their primary medical degree in Australia.

4.2 Characteristics of participants' major practice

From 2004–05 to 2013–14, 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. There was an associated significant increase in the proportion working in practices of 10 or more individual GPs (from 13.6% in 2004–05 to 25.6%). 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.
- In regard to after-hours care (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) decreased from 22.8% in 2004–05 to 19.3% in 2013–14 (results not tabled). The proportion in practices that provided all or some of their own after-hours care (e.g. 'own' + 'co-operative') decreased from 35.9% to 30.7% (Table 4.2).
  - The proportion providing after-hours services in cooperation with other practices (as their sole arrangement) did not change over the time period (11.0% compared with 11.1%, results not tabled), but decreased from 16.2% to 14.2% when this option was combined with others (e.g. 'own + 'co-operative'; 'co-operative' + '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 34.5% in 2004–05 to 47.4% in 2013–14 (results not tabled). When deputising services were used in combination with other arrangements (e.g. 'own' + 'deputising') the proportion increased from 45.8% to 56.4%.
- The proportion of GPs with a computer available at their major practice increased significantly from 93.7% in 2004–05 to 98.5% in 2013–14. The proportion of GPs indicating that they use a computer to some extent significantly increased from 89.0% in 2004–05 to 98.0% in 2013–14.



	Female	<45 years	55+ years	Solo GP	10+ GPs	FRACGP	Own A.H.[a]	Co-op A.H.[a]	Deputising A.H.[a]
2004–05	32.1	34.5	33.6	12.3	13.6	42.3	35.9	16.2	45.8
2013–14	43.0	24.1	47.5	8.7	25.6	56.0	30.7	14.2	56.4

a Multiple responses across these options 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, 2004–05 and 2013–14

Table 4.1: Characteristics of participating GPs, 2004–05 to 2013–14

	Per cent of participating GPs[a]									
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
GP characteristic	(*n* = 953)	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)
Sex (χ^2_9 = 71.2, p < 0.0001) (missing *n*)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Male	67.9	62.8	65.9	63.2	67.5	56.4	61.7	59.2	56.9	57.0
Female	32.1	37.2	34.1	36.8	32.5	43.6	38.3	40.8	43.1	43.0
Age (χ^2_{27} = 175.1, p < 0.0001) (missing *n*)	(1)	(18)	(11)	(8)	(4)	(6)	(6)	(5)	(8)	(5)
< 35 years	9.0	4.7	6.8	7.8	2.6	7.1	6.5	6.6	8.5	6.2
35–44 years	25.5	22.2	22.6	22.2	14.0	21.4	16.7	19.4	17.0	17.9
45–54 years	31.8	34.3	35.6	36.4	37.5	36.7	34.7	32.9	33.2	28.4
55+ years	33.6	38.7	35.0	33.5	45.9	34.8	42.1	41.1	41.3	47.5
Mean GP age	49.9 (49.2–50.6)	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)
Years in general practice (χ^2_{36} = 253.0, p < 0.001) (missing *n*)	(5)	(13)	(13)	(7)	(6)	(7)	(8)	(5)	(11)	(10)
< 2 years	0.4	0.6	0.6	0.6	0.1	1.1	1.0	1.4	2.6	0.9
2–5 years	10.3	4.9	7.9	9.9	3.4	8.9	8.5	10.4	10.9	10.5
6–10 years	12.6	12.1	11.1	12.9	5.7	12.3	9.9	11.1	9.9	9.1
11–19 years	25.4	24.0	23.5	20.6	19.3	23.3	16.3	18.6	17.2	15.8
20+ years	51.3	58.5	57.0	55.9	71.5	54.3	64.3	58.4	59.5	63.7
Currently in a GP training program (χ^2_9 = 40.5, p < 0.0001) (missing *n*)	(10) 3.5	(13) 2.6	(13) 2.9	(4) 2.9	(8) 1.5	(6) 3.6	(8) 3.2	(9) 3.9	(8) 6.1	(14) 4.7
Fellow of RACGP (χ^2_9 = 153.3, p < 0.0001) (missing *n*)	(9) 42.3	(14) 40.7	(6) 46.3	(5) 50.2	(7) 39.7	(4) 53.5	(4) 52.1	(3) 56.8	(6) 55.7	(7) 56.0

(continued)

Table 4.1 (continued): Characteristics of participating GPs, 2004–05 to 2013–14

	Per cent of participating GPs[a]									
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
GP characteristic	(*n* = 953)	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)
Direct patient care hours per week (χ^2_{36} = 120.9, p < 0.0001) (missing *n*)	(29)	(34)	(28)	(25)	(16)	(15)	(16)	(13)	(12)	(14)
≤ 10	0.3	0.8	1.0	0.3	0.3	0.3	0.6	1.2	1.5	1.1
11–20	8.7	9.8	11.3	8.7	7.3	10.3	8.7	12.2	10.1	10.2
21–40	49.2	47.1	47.9	52.4	49.5	56.2	54.0	53.0	55.4	58.2
41–60	37.9	39.0	36.9	36.6	40.2	30.8	34.2	32.1	31.2	29.0
61+	3.9	3.4	2.9	1.9	2.7	2.4	2.4	1.4	1.9	1.6
Mean direct patient care hours per week	39.8 (39.0–40.6)	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)
Place of graduation[b] (χ^2_{54} = 83.7, p = 0.0059) (missing *n*)	(1)	(5)	(1)	(3)	(2)	(1)	(3)	(1)	(3)	(4)
Australia	69.9	72.0	73.6	73.5	74.3	70.6	69.2	67.2	66.2	71.0
Overseas	30.2	28.0	26.4	26.5	25.7	29.4	30.8	32.8	33.8	29.0
Asia	10.9	10.9	10.1	9.8	8.3	9.8	12.2	12.5	11.7	9.7
United Kingdom/Ireland	7.6	8.1	7.3	6.8	10.3	8.8	7.4	8.1	9.2	8.5
Africa and Middle East	5.4	4.5	5.1	4.3	3.8	5.2	5.8	5.6	6.4	5.0
Europe	3.8	2.1	1.7	2.6	1.9	2.0	2.9	3.4	3.0	2.3
New Zealand	1.3	1.9	1.4	1.4	1.1	1.9	1.4	1.6	2.2	1.9
Other	1.3	0.6	0.8	1.6	0.3	1.6	1.2	1.5	1.4	1.6

(continued)

Table 4.1 (continued): Characteristics of participating GPs, 2004–05 to 2013–14

	Per cent of participating GPs[a]									
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
GP characteristic	(*n* = 953)	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)
Consultations in languages other than English[c] (χ^2_{24} = 35.8, *p* = 0.02) (missing *n*)	(1)	(9)	(0)	(4)	(3)	(3)	(5)	(3)	. .	. .
< 25%	21.7	20.9	18.1	20.4	17.6	18.5	21.9	21.7	NAv	NAv
25–50%	2.4	3.6	1.6	3.1	3.5	3.6	2.9	2.9	NAv	NAv
> 50%	3.4	3.5	2.9	3.6	3.0	1.8	1.9	2.8	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, 2004–05 to 2013–14

	Per cent of participating GPs[(a)]									
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Practice characteristic	(*n* = 953)	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)
Practice location by ASGC (χ^2_{36} = 36.9, p = 0.4259) (missing *n*)	(1)	(0)	(0)	(1)	(0)	(0)	(0)	(5)	(0)	(6)
Major cities	67.6	72.1	66.3	72.2	73.4	69.2	69.2	71.5	68.8	68.9
Inner regional	20.1	18.8	22.7	17.4	18.0	20.2	20.6	18.9	19.2	21.5
Outer regional	10.1	7.8	9.4	8.6	7.2	9.1	8.8	8.1	10.5	8.4
Remote	1.5	0.8	1.3	1.3	0.9	1.1	1.2	0.9	1.0	0.9
Very remote	0.7	0.6	0.3	0.5	0.5	0.3	0.3	0.6	0.4	0.2
Size of practice – number of GPs (χ^2_{21} = 192.6, p < 0.0001) (missing *n*)	(6)	(9)	(6)	. .	. .	(11)	(12)	(16)	(28)	(27)
Solo	12.3	13.1	8.2	NAv	NAv	9.2	10.8	10.7	9.8	8.7
2–4 GPs	36.4	35.2	35.7	NAv	NAv	30.0	28.4	26.6	23.3	23.1
5–9 GPs	37.7	38.4	40.3	NAv	NAv	41.4	38.6	42.3	38.6	42.6
10+ GPs	13.6	13.3	15.8	NAv	NAv	19.5	22.2	20.5	28.3	25.6
Size of practice – full-time equivalents (χ^2_{12} = 88.5, p < 0.0001) (missing *n*)	. .	. .	. .	(23)	(8)	(51)	(40)	(111)	(136)	(128)
< 2	NAv	NAv	NAv	17.6	19.6	15.2	17.2	13.8	11.9	10.4
2 < 5 GPs	NAv	NAv	NAv	41.2	42.9	48.9	43.6	43.6	39.0	41.5
5 < 10 GPs	NAv	NAv	NAv	31.9	29.4	28.8	29.6	34.7	38.2	37.4
10+ GPs	NAv	NAv	NAv	9.3	8.1	7.2	9.6	7.9	10.9	10.7

(continued)

Table 4.2 (continued): Characteristics of practices in which participating GPs worked, 2004–05 to 2013–14

	Per cent of participating GPs[a]									
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Practice characteristic	(*n* = 953)	(*n* = 1,017)	(*n* = 930)	(*n* = 953)	(*n* = 1,011)	(*n* = 988)	(*n* = 958)	(*n* = 984)	(*n* = 978)	(*n* = 959)
After-hours arrangements[b] (missing *n*)	(8)	(14)	(3)	(6)	(6)	(2)	(4)	(7)	(5)	(8)
Practice does its own ($\chi^2_9 = 25.9$, $p < 0.0021$)	35.9	34.6	34.6	33.2	28.9	29.1	29.8	30.6	30.7	30.7
Cooperative with other practices ($\chi^2_9 = 13.2$, $p = 0.1522$)	16.2	15.7	15.5	14.6	15.1	17.8	14.3	12.5	14.9	14.2
Deputising service ($\chi^2_9 = 45.9$, $p < 0.0001$)	45.8	50.8	48.1	49.5	57.9	53.1	52.1	53.0	53.3	56.4
Computer available at practice[c]	(14)	(19)	(0)	(7)			(1)	(0)	(4)	(5)
($\chi^{28} = 61.8$, $p < 0.0001$) (missing *n*)	93.7	94.5	96.6	96.7	NAv	NAv	98.0	96.8	97.8	98.5
Computer use by individual GPs[d]	(54)	(60)	(71)	(63)	(3)	(1)	(1)	(0)	(4)	(5)
($\chi^2_7 = 137.6$, $p < 0.0001$) (missing *n*)	89.0	91.5	93.7	94.2	94.6	97.8	95.6	95.9	97.1	98.0

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

(b) Multiple responses were allowed.

(c) Data refer to computer use at the major practice and may not reflect the use of computers by individual GPs for clinical and/or administrative purposes.

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

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 2004–05 to 2013–14. The direction and type of change from 2004–05 to 2013–14 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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 2004–05 and 2013–14. 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 2013–14 can be found in Chapter 5 in *General practice activity in Australia 2013–14*.[3]

5.1 Content of the encounters

Table 5.1 provides an overview of the changes over time between 2004–05 and 2013–14. The number of patient reasons for encounter (RFEs) recorded by the GP increased significantly over the decade, from 149.6 RFEs per 100 encounters in 2004–05 to 155.3 per 100 encounters in 2013–14. Changes in types of RFEs are reported in Chapter 6.

The rate of problems managed increased from 145.5 per 100 encounters in 2004–05 to 158.2 per 100 encounters in 2013–14. This represents an additional 68.2 million problems managed in general practice in 2013–14 than a decade earlier. There was also an increase in the rate of chronic problem management, from 51.8 per 100 encounters in 2004–05 to 56.3 per 100 in 2013–14. This represents an estimated additional 24.2 million chronic problems managed in general practice nationally in 2013–14 than in 2004–05. Further details about changes in the types of problems managed are presented in Chapter 7.

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. However, there was a significant increase in GP-supplied medications from 8.1 per 100 encounters in 2004–05 to 10.2 per 100 encounters in 2013–14. Specific changes in the types of medications recorded are detailed in Chapter 9.

There was a significant increase in the number of procedural treatments performed in general practice between 2004–05 and 2013–14, from 15.5 per 100 encounters to 18.9 per 100 encounters. This increase represents an additional 10.0 million procedures performed in 2013–14 compared with a decade earlier. More detail can be found in Chapter 10.

Between 2004–05 and 2013–14, there was no change in the rate of clinical treatments (such as advice and counselling), but the rate dropped dramatically from 39.2 per 100 encounters in 2004–05 to 29.2 per 100 encounters in 2005–06. It then gradually increased, and in 2013–14 was 37.6 per 100 encounters, no different from the 2004–05 rate. This pattern was reflected in the fluctuation in the total other treatments (of which clinical treatments are the major component). These changes are described in further detail in Chapter 10.

Referrals increased over the decade 2004–05 to 2013–14, from 11.5 to 15.7 per 100 encounters. This represented 9.7 million more referrals nationally in 2013–14 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 2004–05 and 2013–14. 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 Medicare/DVA. These are expressed as a proportion of all Medicare/DVA-claimable encounters. In 2004–05, 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.

To allow comparability of data over time, only one item number per Medicare/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 override Practice Incentives Program payment item numbers, which override procedural item numbers, which override other Medicare item numbers. Table 5.2 includes only items claimed by GPs (excluding items claimed for practice nurses etc.) and shows that:

- short surgery consultations increased significantly from 1.0% of Medicare/DVA-claimable encounters in 2004–05 to 2.0% in 2013–14. Previous research suggests that part of this increase is related to increasing practice nurse involvement in GP encounters[57]
- the proportion that were long surgery consultations did not change overall. However, after being 10.5% in 2004–05, the proportion remained steady until 2007–08, then dropped significantly in 2008–09, then rose again and in 2013–14 represented 10.7% of Medicare/DVA-claimable encounters, the same as in 2004–05
- 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.[58] 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 2004–05 and 2013–14.

5.3 Consultation length

In a subsample of consultations, start and finish times were recorded. There was no significant change in the mean length of consultation between 2004–05 and 2013–14 for A1 Medicare/DVA-claimable encounters but the mean consultation length in 2013–14 was significantly longer than in many years in the last decade. The mean length of consultation for all Medicare/DVA-claimable encounters increased significantly between 2004–05 and 2013–14, from 14.1 minutes to 14.8 minutes. The median consultation length for both groups of items increased from 12 to 13 minutes in the last year (Table 5.3).

Table 5.1: Summary of morbidity and management, 2004–05 to 2013–14

Variable	Rate per 100 encounters (95% CI)										
	2004–05 (*n* = 94,386)	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)	↑↓[a]
Reasons for encounter	149.6 (147.8–151.5)	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)	↑
Problems managed	145.5 (143.6–147.4)	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)	↑
New problems	55.2 (53.8–56.5)	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)	↑
Chronic problems	51.8 (50.1–53.5)	52.2 (50.3–54.1)	53.4 (51.7–55.1)	54.1 (52.2–56.0)	57.0 (55.2–58.7)	54.2 (52.3–56.2)	53.1 (51.2–55.0)	55.6 (53.6–57.7)	55.7 (53.7–57.8)	56.3 (54.4–58.3)	↑
Work-related	3.1 (2.8–3.5)	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)	↓
Medications	101.5 (99.3–103.8)	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)	—
Prescribed	83.4 (81.2–85.6)	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)	—
GP-supplied	8.1 (7.3–8.8)	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)	↑
Advised OTC	10.1 (9.2–10.9)	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)	—
Other treatments	54.7 (52.1–57.3)	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)	—
Clinical	39.2 (37.1–41.4)	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)	§
Procedural	15.5 (14.6–16.4)	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)	↑

(continued)

Table 5.1 (continued): Summary of morbidity and management, 2004–05 to 2013–14

Variable	Rate per 100 encounters (95% CI)										
	2004–05 (*n* = 94,386)	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)	↑↓[(a)]
Referrals	11.5 (11.1–12.0)	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)	↑
Medical specialist	7.7 (7.4–8.0)	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)	↑
Allied health services	2.7 (2.5–2.9)	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)	↑
Hospital	0.5 (0.4–0.5)	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)	—
Emergency department	0.2 (0.1–0.2)	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)	↑
Other referrals	0.4 (0.4–0.5)	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)	—
Pathology	36.7 (35.2–38.2)	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)	↑
Imaging	8.3 (8.0–8.6)	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)	↑
Other investigations	1.1 (1.0–1.2)	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)	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; and § indicates a noteworthy change during the decade.

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, 2004–05 to 2013–14

MBS/DVA consultation category	Percentage distribution of MBS/DVA-claimable encounters (95% CI)										
	2004–05 (*n* = 81,582)	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)	↑↓ (a)
Short surgery consultations	1.0 (0.8–1.3)	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)	↑
Standard surgery consultations	82.3 (81.0–83.5)	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)	↓
Long surgery consultations	10.5 (9.7–11.2)	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)	§
Prolonged surgery consultations	0.8 (0.6–0.9)	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)	—
Home and institution visits	1.2 (1.0–1.4)	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)	—
Residential aged care facility	1.2 (0.8–1.6)	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)	—
Chronic disease management	0.2 (0.1–0.2)	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)	↑
GP mental health care	0.0Ŧ (0.0–0.0)	0.0Ŧ (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)	↑
Health assessment	0.2 (0.1–0.2)	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)	↑
Incentive payments	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	—
Other items	2.6 (1.7–3.4)	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)	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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), 2004–05 to 2013–14

Variable	Consultation length (minutes)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑/↓[a]
A1 Medicare/DVA items (A, B, C, D)[b]	**(*n* = 30,381)**	**(*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)**	
Mean	14.0 (13.8–14.3)	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)	§
Median	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	§
Mode	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	—
Range	1–120	1–110	1–155	1–110	1–120	1–148	1–89	1–150	1–130	1–110	. .
All Medicare/DVA-claimable encounters (GP items)	**(*n* = 31,281)**	**(*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)**	
Mean	14.1 (13.9–14.4)	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)	↑
Median	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	§
Mode	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	—
Range	1–180	1–110	1–155	1–110	1–120	1–148	1–95	1–150	1–165	1–150	. .

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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: DVA – Australian Government 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 2004–05 to 2013–14 is shown for each result in the column on the far right of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; and § indicates a noteworthy change during the decade.

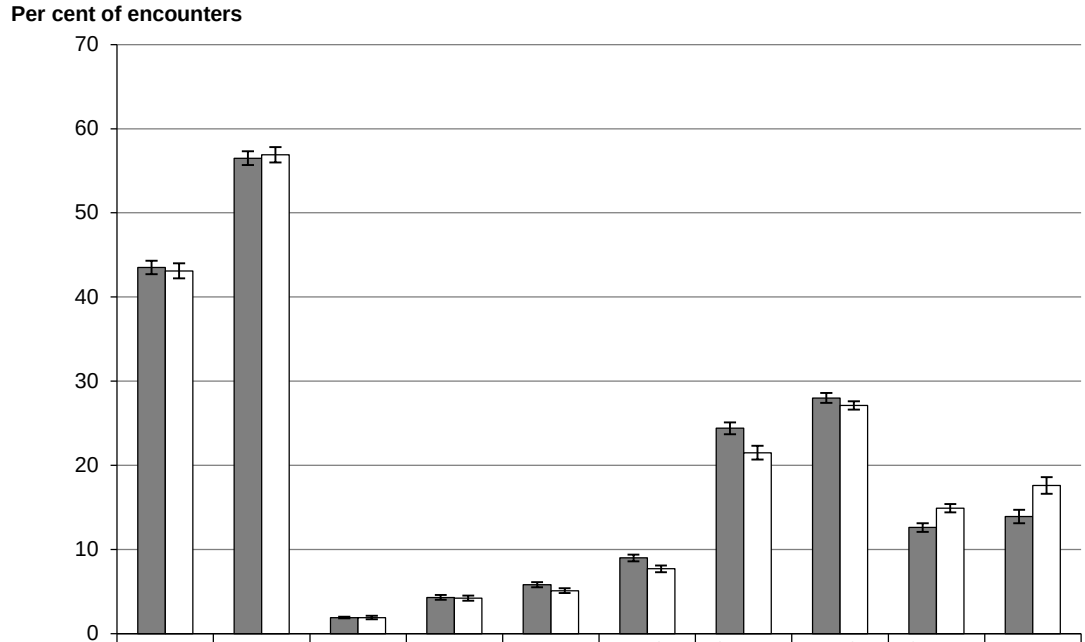
Significant changes in rates per 100 encounters can be extrapolated to estimate the national increase or decrease in the measured event between 2004–05 and 2013–14. There were 35.2 million more encounters claimed through Medicare in 2013–14 than in 2004–05 (133.4 million versus 98.2 million). It should 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 2004–05 to 2013–14. 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 45.4% to 40.4%, while the proportion with patients aged 65 years and over increased from 26.5% to 32.5%. When extrapolated, even with the increased number of encounters nationally, the number of encounters with patients aged less than 45 years only increased by about 9.3 million per annum over the decade, while the number of encounters with patients aged 65 years and over increased by about 17.3 million per annum nationally.

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 2004–05 to 6.6% in 2013–14). Between 2004–05 and 2013–14, the proportion of encounters with patients holding a Commonwealth concession card decreased from 47.5% to 43.5% while patients holding a Repatriation health card decreased by one-third (3.6% to 2.2%). There was no significant change in the proportion of encounters that were with patients from a non-English-speaking background or with Indigenous patients (Table 6.1).



Note: Missing data removed.

Figure 6.1: Age and sex distribution of patients at encounters, 2004–05 and 2013–14 (95% confidence interval)

6.3 Patient reasons for encounter

RFEs are the concerns and expectations patients bring to the GP. RFEs reflect the patient's demand for care, and can provide an indication of service use patterns that may benefit from intervention at a population level.

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.

Patient RFEs can have a one-to-one, one-to-many, many-to-one or many-to-many relationship to problems managed. That is, the patient may describe a single RFE that relates to a single problem managed at the encounter, 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 2004–05 and 2013–14 there was a significant decrease in the proportion of encounters involving a single RFE, from 61.4% to 57.7% in 2013–14. The proportion of encounters with two RFEs increased from 27.6% in 2004–05 to 29.4% of all encounters in 2013–14. The proportion with three RFEs increased from 11.0% in 2004–05 to 12.9% in 2013–14. Extrapolation of the effect of this change suggests there were about 18.5 million more encounters nationally where two or three RFEs were reported in 2013–14 than in 2004–05.

This increase in multiple RFEs encounters resulted in a significant increase in the overall rate of RFEs, from 149.6 per 100 encounters in 2004–05 to 155.3 per 100 encounters in 2013–14 (Table 6.3). This increase, when extrapolated, equates to about 60.3 million more RFEs nationally in 2013–14 than in 2004–05.

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. However, their presentation rate significantly decreased, from 68.7 per 100 encounters in 2004–05 to 62.5 per 100 encounters in 2013–14.
- 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 increase in the rate of RFEs related to 'other' diagnoses, from 14.6 to 17.1 per 100 encounters.

Processes of care

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

- Patient requests for diagnostic and preventive procedures (such as immunisation) significantly increased from 23.4 per 100 encounters in 2004–05 to 26.4 in 2013–14.
- Patient requests for medications, treatments and therapeutics (such as repeat prescriptions) significantly increased from 14.5 to 16.2 per 100 encounters across the decade.
- Presentations for test results increased by about 40%, from 6.8 to 9.4 per 100 encounters. When extrapolated, we estimate 5.9 million more encounters nationally with an RFE of this type in 2013–14 than a decade earlier.
- The rate of requests for an administrative procedure (such as a sickness certificate) increased by about 90%, from 1.7 to 3.2 per 100 encounters. This change equates to an estimated national increase of approximately 2.6 million more requests for an administrative procedure nationally in 2013–14 than in 2004–05.
- Referrals and other RFEs was the only processes of care group not to change across the decade.

Reasons for encounter by ICPC-2 chapter

Table 6.4 shows that between 2004–05 and 2013–14:

- the rate at which patients described RFEs of a general and unspecified nature increased by more than 20%. When extrapolated to national estimates, this equates to about 24.3 million more general and unspecified RFEs in 2013–14 than in 2004–05
- RFEs related to psychological problems increased by about 20%. This equates to approximately 4.9 million more RFEs related to psychological problems nationally in 2013–14 than in 2004–05. 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*[59]
- the rate at which patients presented RFEs relating to the blood and blood-forming organs increased by about 40%. This is probably linked to increased INR testing (as discussed in Chapter 10).

Table 6.4 also shows that between 2004–05 and 2013–14, there were significant decreases in:

- the rate of RFEs relating to neurological and ear problems, both decreased by about 15%
- the rate of eye problem RFEs, decreasing by about one-quarter over the decade.

The rate of RFEs relating to pregnancy and family planning decreased marginally.

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

Table 6.5 shows that between 2004–05 and 2013–14 the proportion of encounters:

- where patients described at least one RFE of a general and unspecified nature increased by about 20%. When extrapolated to national estimates, this equates to about 19.9 million more encounters with at least one general and unspecified RFE in 2013–14 than in 2004–05
- with at least one RFE of a psychological nature increased by about 20%. This equates to approximately 4.4 million more encounters with at least one RFE of a psychological nature nationally in 2013–14 than in 2004–05
- where patients presented at least one RFE relating to the blood and blood-forming organs increased by about 40%.

Table 6.5 also shows that between 2004–05 and 2013–14, there were significant decreases in the proportion of encounters with at least one:

- RFE relating to neurological problems (about 15%)
- ear related RFE (about 15%)
- eye related RFE (about 25%)

The proportion of encounters with at least one pregnancy and family planning related RFE decreased marginally.

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:

- requests for test results (by about 40%) and a marginal increase in requests for blood tests (by about 20%)
- patient requests for administrative procedures (such as doctor's certificates) (by about 90%) and requests for a referral (doubled)
- patient presentations with skin symptoms or complaints (by 20%)
- patient presentations for anxiety (by 40%). The increase in this common psychological condition explains some of the increase in the psychological chapter reported above, and may have resulted from the introduction of both the Better Outcomes and Better Access general practice mental health care initiatives[60]
- patient presentations for diabetes (by 75%), equating to an extrapolated estimated 1.1 million more encounters for diabetes in 2013–14 than a decade earlier.

From 2004–05 to 2013–14:

- the rate of presentations for immunisation/vaccination did not significantly change across the decade, but, there was a significant spike in 2009–10 coinciding with H1N1 influenza pandemic.
- there were significant decreases in the RFE rates for throat complaints (by about 30%), headache (about 25%), ear pain/earache (25%), chest pain (not otherwise specified) (about 20%), and oral contraception (40%)
- there were marginally significant decreases in presentations for abdominal pain, weakness/tiredness, diarrhoea, vertigo/dizziness, sleep disturbance, leg/thigh complaints, and neck complaints.

Table 6.1: Characteristics of patients at encounters, 2004–05 to 2013–14

Patient characteristics	Rate per 100 encounters (95% CI)										↑↓[a]
	2004–05 (*n* = 94,386)	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)	
Sex (missing *n*)[b]	(809)	(788)	(765)	(876)	(867)	(931)	(888)	(842)	(823)	(927)	
Male	43.5 (42.7–44.3)	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)	—
Female	56.5 (55.7–57.3)	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)	—
Age group (missing *n*)[b]	(925)	(769)	(779)	(784)	(704)	(781)	(771)	(793)	(825)	(814)	
< 1 year	1.9 (1.8–2.1)	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)	—
1–4 years	4.3 (4.0–4.7)	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)	—
5–14 years	5.8 (5.5–6.1)	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)	↓
15–24 years	9.0 (8.6–9.4)	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)	↓
25–44 years	24.4 (23.7–25.1)	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)	↓
45–64 years	28.0 (27.4–28.6)	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)	—
65–74 years	12.6 (12.1–13.2)	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)	↑
75+ years	13.9 (13.1–14.7)	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)	↑

(continued)

Table 6.1 (continued): Characteristics of patients at encounters, 2004–05 to 2013–14

Patient characteristics	Rate per 100 encounters (95% CI) 2004–05 (*n* = 94,386)	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)	↑↓[a]
Other characteristics[b]											
New patient to practice	9.1 (8.4–9.9)	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)	↓
Commonwealth concession card	47.5 (46.0–49.0)	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)	↓
Repatriation health card	3.6 (3.3–3.8)	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)	↓
Non-English-speaking background	12.1 (10.1–14.1)	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)	—
Aboriginal person and/or Torres Strait Islander	1.5 (1.1–2.0)	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)	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

(b) Missing data removed.

Note: CI – confidence interval.

Table 6.2: Number of patient reasons for encounter, 2004–05 to 2013–14

Number of reasons for encounter	Rate per 100 encounters (95% CI) 2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	↑↓[a]
One RFE	61.4 (60.2–62.6)	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)	↓
Two RFEs	27.6 (26.9–28.3)	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)	↑
Three RFEs	11.0 (10.3–11.7)	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)	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change, and — indicates no significant difference between 2004–05 and 2013–14.

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

Table 6.3: Patient reasons for encounter by ICPC-2 component, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
ICPC component	**2004–05 (*n* = 94,386)**	**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* = 149,005)**	**2011–12 (*n* = 99,030)**	**2012–13 (*n* = 98,564)**	**2013–14 (*n* = 95,879)**	↑↓ (a)
Symptoms and complaints	68.7 (66.8–70.6)	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)	↓
Diagnosis, diseases	27.2 (26.0–28.4)	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)	—
Infections	7.0 (6.5–7.4)	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)	—
Injuries	4.4 (4.2–4.6)	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)	—
Neoplasms	0.9 (0.8–1.0)	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)	—
Congenital anomalies	0.3 (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)	0.3 (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)	—
Other diagnoses, diseases	14.6 (13.8–15.5)	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)	↑
Diagnostic and preventive procedures	23.4 (22.6–24.3)	24.3 (23.4–25.3)	24.8 (23.9–25.7)	25.6 (24.7–26.5)	26.9 (26.0–27.8)	27.0 (26.0–27.9)	25.1 (24.1–26.2)	24.6 (23.7–25.6)	24.6 (23.7–25.6)	26.4 (25.4–27.4)	↑
Medications, treatments and therapeutics	14.5 (13.8–15.3)	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)	↑
Results	6.8 (6.4–7.2)	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)	↑
Referrals and other RFEs	7.3 (6.9–7.8)	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)	—
Administrative	1.7 (1.5–1.8)	1.7 (1.5–1.8)	1.8 (1.7–2.0)	2.3 (2.2–2.5)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	2.6 (2.4–2.8)	2.9 (2.7–3.2)	3.2 (2.9–3.4)	3.2 (3.0–3.5)	↑
Total RFEs	**149.6 (147.8–151.5)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; and § indicates a noteworthy change during the decade.

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, 2004–05 to 2013–14

ICPC-2 chapter	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	
General & unspecified	36.5 (35.5–37.6)	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)	↑
Respiratory	20.6 (19.7–21.4)	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)	—
Skin	15.6 (15.0–16.2)	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)	—
Musculoskeletal	16.7 (16.0–17.3)	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)	—
Circulatory	10.5 (10.0–11.0)	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)	—
Digestive	9.9 (9.5–10.3)	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)	—
Psychological	7.6 (7.2–8.0)	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)	↑
Endocrine & metabolic	6.2 (5.8–6.5)	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)	—
Female genital system	5.0 (4.6–5.4)	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)	—
Neurological	5.1 (4.9–5.4)	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)	↓
Ear	3.9 (3.7–4.1)	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)	↓
Pregnancy & family planning	3.4 (3.2–3.6)	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)	↓
Urology	2.5 (2.4–2.7)	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)	—

(continued)

Table 6.4 (continued): Patient reasons for encounter by ICPC-2 chapter, 2004–05 to 2013–14

ICPC-2 chapter	Rate per 100 encounters (95% CI)										
	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	↑↓[a]
Eye	2.7 (2.6–2.9)	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)	↓
Blood & blood-forming organs	1.2 (1.1–1.4)	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)	↑
Male genital system	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.2 (1.1–1.3)	1.3 (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)	—
Social	1.0 (0.9–1.1)	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)	—
Total RFEs	**149.6 (147.8–151.5)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; and — indicates there was no significant change in 2013–14 compared with 2004–05.

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

Table 6.5: Patient reasons for encounter by ICPC-2 chapter, 2004–05 to 2013–14

	Proportion (95% CI)										
ICPC-2 chapter	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	↑↓[(a)]
General & unspecified	33.0 (32.1–33.8)	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)	↑
Respiratory	17.3 (16.7–17.9)	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)	—
Skin	14.4 (13.9–14.9)	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)	—
Musculoskeletal	15.2 (14.7–15.7)	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)	—
Circulatory	10.0 (9.5–10.4)	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)	—
Digestive	8.6 (8.3–8.9)	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)	—
Psychological	6.9 (6.5–7.2)	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)	↑
Endocrine & metabolic	5.9 (5.6–6.2)	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)	—
Female genital system	4.5 (4.2–4.9)	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)	—
Neurological	4.9 (4.7–5.2)	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)	↓
Ear	3.8 (3.6–3.9)	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)	↓
Pregnancy & family planning	3.3 (3.1–3.6)	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)	↓
Urology	2.3 (2.1–2.4)	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)	↑

(continued)

Table 6.5 (continued): Patient reasons for encounter by ICPC-2 chapter, 2004–05 to 2013–14

ICPC-2 chapter	Proportion (95% CI)										↑↓[(a)]
	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	
Eye	2.5 (2.4–2.6)	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)	↓
Blood & blood-forming organs	1.2 (1.0–1.3)	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)	↑
Male genital system	1.2 (1.1–1.3)	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)	—
Social	1.0 (0.9–1.0)	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)	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; and — indicates there was no significant change in 2013–14 compared with 2004–05.

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, 2004–05 to 2013–14

Patient reason for encounter	Rate per 100 encounters (95% CI)										
	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	↑↓[(a)]
Check-up – all*	13.4 (12.8–14.0)	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)	—
Prescription – all*	12.2 (11.5–12.8)	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)	—
Test results*	6.8 (6.4–7.2)	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)	↑
Cough	5.9 (5.5–6.2)	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)	—
Immunisation/ vaccination – all*	4.3 (3.9–4.8)	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)	§
Administrative procedure – all*	1.7 (1.5–1.8)	1.7 (1.5–1.8)	1.8 (1.7–2.0)	2.3 (2.2–2.5)	2.4 (2.2–2.6)	2.4 (2.2–2.6)	2.6 (2.4–2.8)	2.9 (2.7–3.2)	3.2 (2.9–3.4)	3.2 (3.0–3.5)	↑
Back complaint*	3.4 (3.2–3.6)	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)	—
Blood test – all*	2.2 (2.0–2.4)	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)	↑
Rash*	2.9 (2.7–3.1)	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)	—
Throat complaint	3.5 (3.3–3.8)	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)	↓
Depression*	1.9 (1.7–2.0)	1.9 (1.7–2.0)	1.9 (1.8–2.1)	2.0 (1.9–2.2)	2.1 (1.9–2.2)	2.2 (2.0–2.3)	2.2 (2.1–2.4)	2.2 (2.0–2.4)	2.3 (2.1–2.5)	2.1 (1.9–2.3)	—
Abdominal pain*	2.3 (2.2–2.5)	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)	↓
Hypertension/high blood pressure*	1.7 (1.5–1.9)	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)	—
Skin symptom/complaint, other	1.5 (1.3–1.6)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.4 (1.3–1.5)	1.5 (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)	↑

(continued)

Table 6.6 (continued): Most frequent patient reasons for encounter, 2004–05 to 2013–14

Patient reason for encounter	Rate per 100 encounters (95% CI)										
	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	↑↓[a]
Fever	1.8 (1.6–2.0)	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)	—
Observation/health education/advice/diet – all*	1.5 (1.3–1.7)	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)	—
Upper respiratory tract infection	1.7 (1.5–2.0)	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)	—
Headache*	2.0 (1.9–2.2)	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)	↓
Anxiety*	1.0 (0.9–1.1)	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)	↑
Other referrals NEC	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.0)	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)	↑
Diabetes – all*	0.8 (0.7–0.9)	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)	↑
Weakness/tiredness	1.7 (1.5–1.8)	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)	↓
Knee symptom/complaint	1.4 (1.3–1.5)	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)	—
Ear pain/earache	1.6 (1.5–1.7)	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)	↓
Diarrhoea	1.4 (1.3–1.5)	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)	↓
Sneezing/nasal congestion	1.4 (1.2–1.6)	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)	—
Shoulder symptom/complaint	1.3 (1.1–1.4)	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)	—
Foot/toe complaint	1.2 (1.1–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.2)	1.1 (1.0–1.1)	1.1 (1.0–1.1)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.1 (1.0–1.2)	—

(continued)

Table 6.6 (continued): Most frequent patient reasons for encounter, 2004–05 to 2013–14

Patient reasons for encounter	Rate per 100 encounters (95% CI)										
	2004–05 (*n* = 94,386)	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* = 149,005)	2011–12 (*n* = 99,030)	2012–13 (*n* = 98,564)	2013–14 (*n* = 95,879)	↑↓ (a)
Vertigo/dizziness	1.2 (1.1–1.3)	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)	↓
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)	1.1 (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)	—
Sleep disturbance	1.2 (1.1–1.4)	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)	↓
Leg/thigh complaint	1.1 (1.0–1.2)	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)	↓
Follow-up encounter NOS	0.7 (0.6–0.9)	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)	—
Chest pain NOS	1.1 (1.0–1.2)	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)	**↓**
Vomiting	0.9 (0.8–1.0)	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)	—
Neck complaint	1.0 (0.9–1.2)	0.9 (0.8–1.1)	0.9 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–1.0)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	↓
Other reason for encounter NEC	1.0 (0.9–1.2)	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)	↓
Oral contraception*	1.0 (0.9–1.1)	0.8 (0.7–0.9)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (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)	0.6 (0.5–0.7)	**↓**
Total RFEs	**149.6 (147.8–151.5)**	**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)**	**↑**

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: **↑/↓** indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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/2123/11883>).

Note: CI – confidence interval; NOS – not otherwise specified; RFE – reason for encounter; NEC – not elsewhere classified. Includes only RFEs recorded in at least one year at a rate ≥ 1.0 per 100 encounter.

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. 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: 2004–05 to 2013–14. The direction and type of change from 2004–05 to 2013–14 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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 2004–05 and 2013–14. 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 35.2 million (35.8%) between 2004–05 (98.2 million encounters) and 2013–14 (133.4 million encounters). As a result, a decreased rate of a particular 'measured event' per 100 encounters may occasionally yield a national increase in the absolute number of those events.

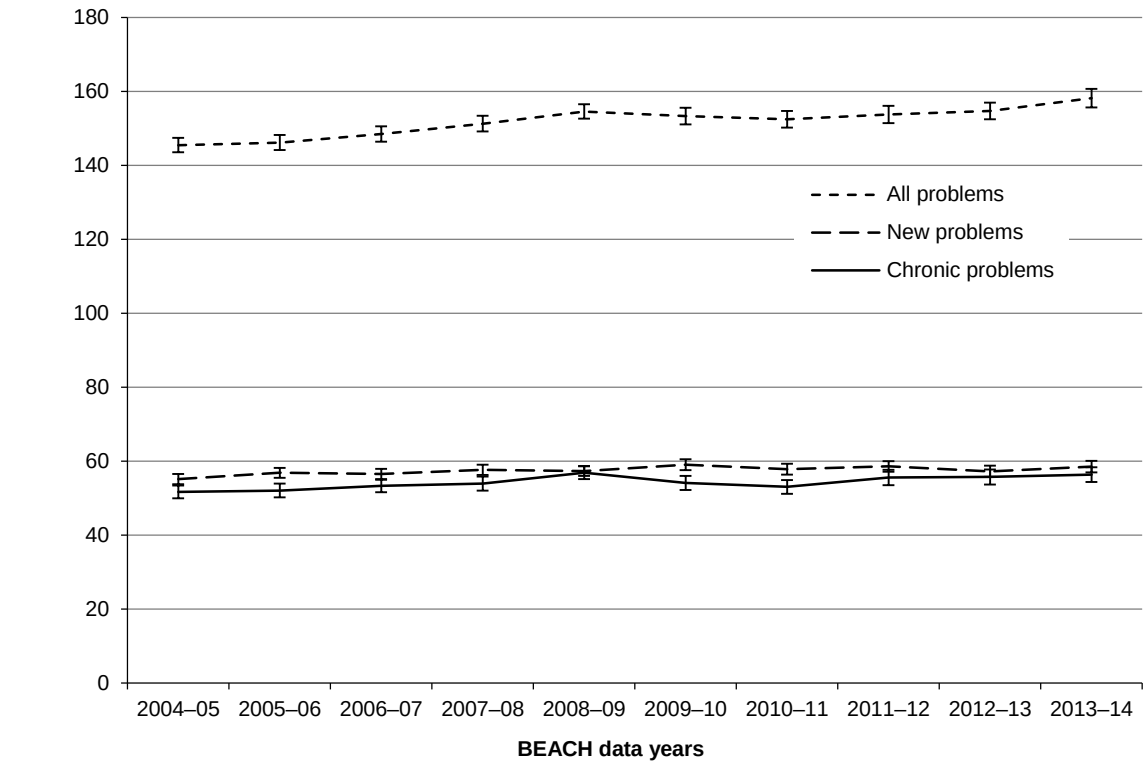
Detailed analyses of 'problems managed' by participating GPs in the 2013–14 BEACH year can be found in the companion report, *General practice activity in Australia 2013–14*.[3]

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.

In considering these results, the reader must be mindful that a rate per 100 encounters for a single ungrouped problem, for example 'asthma, 2.2 per 100 encounters,' can be regarded as equivalent to 'asthma is managed at 2.2% 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 would have to be based on the proportion of encounters involving at least one of the concepts within the group. A new table (Table 7.3b) has been added to this year's report that 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 2004–05 to 2013–14. The table allows users to make the following kinds of statements: in 2013–14 at least one respiratory problem was managed at 18.2% of encounters.

Figure 7.1 shows statistically significant increases in the rate at which all problems, new problems and chronic problems were managed per 100 encounters over the 10 years to 2013–14.



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, 2004–05 to 2013–14 (95% confidence intervals)

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 14.2 million fewer occasions on which one problem was managed in 2013–14 than in 2004–05. In contrast, there were about 11.9 million more occasions on which two problems were managed, 6.3 million more occasions where three problems were managed, and 2.8 million more occasions where four problems were managed by GPs in Australia in 2013–14 than in 2004–05.

These results led to a significant increase in the average number of problems managed at encounter, from 145.5 per 100 encounters in 2004–05 to 158.2 in 2013–14 (Table 7.2). This suggests there were an additional 68.2 million problems managed at GP–patient encounters in Australia in 2013–14 than in 2004–05.

7.2 Problems managed by ICPC-2 component

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

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

- 40.2 million additional contacts with problems classified as 'diagnosis, diseases' in 2013–14 than in 2004–05
- 14.5 million more contacts with problems described in terms of 'symptoms and complaints' in 2013–14 than in 2004–05
- 7.9 million more contacts with problems classified as 'diagnostic and preventive procedures' in 2013–14 than in 2004–05
- 2.3 million more contacts described as 'medications, treatments and therapeutics' in 2013–14 than in 2004–05
- 1.6 million more contacts described as 'test results' in 2013–14 than in 2004–05
- 1.3 million more contacts with problems classified as 'administrative'.

The 'diagnosis, diseases' component can be broken down into various subtypes (described in Section 2.8). Changes in problem types managed between 2004–05 and 2013–14 were also evident in these subtypes, with the majority of the increase in the group 'diagnoses, diseases' accounted for by an increase in the group 'other diagnoses, diseases'. The management of the group 'neoplasms' marginally increased, representing an additional 2.4 million more contacts for the management of neoplasms in 2013–14 than in 2004–05.

The management rate of 'infections' decreased. 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 5.4 million more contacts with problems classified as infections in 2013–14 than in 2004–05.

There was no change in the management rate of problems described and classified as 'referrals and other reasons for encounter' (Table 7.2).

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 2004–05 to 2013–14.

General and unspecified problems were the most frequently managed in 2013–14, with their management significantly increasing over the decade from 15.1 per 100 encounters in 2004–05 to 20.3 per 100 in 2013–14, an increase of 34.4% over the decade.

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

- psychological problems, from 11.4 to 13.7 per 100 encounters
- endocrine and metabolic problems, from 11.8 to 13.6 per 100 encounters
- digestive problems, from 9.9 to 11.2 per 100 encounters
- urological problems, from 3.0 to 3.6 per 100 encounters (Table 7.3a).

There was a significant decrease in the management rate of problems classified to the 'ear' chapter, from 4.1 to 3.5 per 100 encounters. Similarly, there was a significant decrease in the management rate of eye problems over the decade, from 2.7 to 2.2 per 100 encounters.

There was no statistically significant difference in the management rate of respiratory problems in 2013–14 compared with 2004–05. However, there was a significantly higher rate of respiratory problems in 2009–10, likely due to the concern regarding H1N1 influenza during this time.

Table 7.3b, new in this year's report, 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 during which at least one problem was managed in some ICPC-2 chapters. Examples include:

- general and unspecified problems (from 14.4% of encounters in 2004–05 to 18.7% in 2013–14), representing an additional 10.8 million encounters during which at least one general and unspecified problem was managed in 2013–14 than in 2004–05
- psychological problems (from 10.8% to 12.8%), representing an additional 6.5 million encounters during which at least one psychological problem was managed in 2013–14 than in 2004–05
- endocrine and metabolic problems (from 10.8% to 12.4%), representing an additional 5.9 million encounters in 2013–14 where at least one endocrine and metabolic problem was managed than in 2004–05.

In contrast, the proportion of encounters during which at least one ear problem was managed declined from 4.0% in 2004–05 to 3.5% in 2013–14. However, due to the overall increase in general practice encounters nationally, this equated to an increase of 740,000 encounters during which at least one ear problem was managed in 2013–14 than 10 years previously. Similarly, the proportion of encounters during which at least one eye problem was managed decreased, but there were an additional 280,000 encounters during which at least one eye problem was managed in 2013–14 than in 2004–05.

The individual problems managed most frequently are described in Table 7.4. This demonstrates that in all years from 2004–05 to 2013–14, the most frequently managed problems were hypertension, check-up, immunisation/vaccination and upper respiratory tract infection (URTI).

Although there was no overall change in the management rate of URTI between 2004–05 and 2013–14, there was a marginal decrease in the management rate over the last year, from 5.8 per 100 encounters in 2012–13 to 4.9 per 100 encounters in 2013–14. Similarly, there were significant decreases in the management of acute bronchitis/bronchiolitis from 2012–13 (2.3 per 100 encounters) to 2013–14 (1.9 per 100), although this reflects an overall decrease in the management of acute bronchitis/bronchiolitis over the decade 2004–05 to 2013–14. The management of tonsillitis declined over the decade (from 1.0 to 0.7 per 100 encounters), but there was no change over the last year. According to Australia's Bureau of Meteorology, the period from September 2012 to August 2013 was Australia's warmest on record,[61] which may have contributed to the low rate of respiratory infections managed. However, the data show fluctuations from year to year in the management rates of respiratory infections, so we will continue to monitor any changes over the coming years.

There were statistically significant increases in the management rates of a number of problem types, including general check-up, depression, diabetes, prescriptions, gastro-oesophageal reflux disease, anxiety, test results, atrial fibrillation/flutter, administrative procedure, vitamin/nutritional deficiency, abnormal test results and bursitis/tendonitis/synovitis NOS.

When extrapolated to all GP–patient encounters across Australia, these changes represent:

- 2.1 million more general check-ups in 2013–14 than in 2004–05. 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, and those aged 45–49 at risk of developing chronic disease[62]
- 2.1 million more occasions of depression management
- 2.5 million more occasions of diabetes management
- 2.1 million more contacts for prescriptions
- 1.6 million more contacts for test results and 950,000 more contacts for abnormal test results. These increases may be explained by increased orders for pathology tests over the decade described in Chapter 12
- 1.4 million more occasions where gastro-oesophageal reflux disease was managed
- 1.3 million more occasions of anxiety management
- 1.3 million more occasions where vitamin/nutritional deficiency was managed
- 1.3 million more contacts for problems regarded as administrative procedures
- 1.2 million more occasions where atrial fibrillation/flutter was managed
- 850,000 more occasions where bursitis/tendonitis/synovitis NOS was managed.

In contrast, over the decade there were significant decreases in the management rates of asthma, acute bronchitis/bronchiolitis, sprain/strain, oral contraception, acute otitis media/myringitis and tonsillitis, and a marginal decrease in the management of contact dermatitis.

When extrapolated to general practice encounters across Australia, these changes represent:

- 110,000 fewer occasions where acute otitis media/myringitis was managed in 2013–14 than in 2004–05
- 50,000 fewer occasions of tonsillitis management.

Due to the overall increase in the number of GP–patient encounters claimed through the MBS (described in the introduction to this chapter), for some problems managed there was a

national increase in the number of contacts for the problem over the decade, despite a decrease in the management rate over the decade, including:

- 410,000 more occasions of asthma management in 2013–14 than in 2004–05
- 180,000 more occasions of acute bronchitis/bronchiolitis management in 2013–14 than in 2004–05
- 400,000 more occasions of contact dermatitis management
- 65,000 more occasions of sprain/strain management
- 55,000 more contacts for the management of oral contraception.

The management rate of immunisation/vaccination did not change significantly between 2004–05 (4.6 per 100 encounters) and 2013–14 (5.8). However, there was a significant spike in 2009–10 (7.3 per 100) that coincided with the H1N1 influenza pandemic.

7.4 Most common new problems

There was a significant increase in the management rate of all new problems combined over the decade, from 55.2 to 58.5 per 100 encounters, equating to an additional 23.8 million new problems managed in 2013–14. Table 7.5 shows the most frequently managed new problems between 2004–05 and 2013–14.

URTI was the most frequently managed new problem. Although there was no overall change in its management rate between 2004–05 and 2013–14, there has been a marginal decrease in the management rate in the last year, from 4.5 per 100 encounters in 2012–13 to 3.8 per 100 encounters in 2013–14. Similarly, there was a decrease in new presentations of acute bronchitis/bronchiolitis from 2012–13 (1.7 per 100 encounters) to 2013–14 (1.3 per 100), but in this case figures demonstrate a significant decrease in new presentations of acute bronchitis/bronchiolitis over the decade 2004–05 to 2013–14. These decreases reflect overall changes in the management of respiratory infections, as described in Section 7.3.

New presentations for immunisation/vaccination increased over the decade (2.7 to 3.7 per 100 encounters), resulting in an additional 2.3 million contacts for new immunisation/vaccination in 2013–14 compared with 2004–05.

The management rate of new check-ups increased significantly (from 2.2 to 3.0 per 100 encounters). This is likely to be due to the ageing population and new MBS items for check-ups (as discussed above). When extrapolated, this increase represents 1.8 million additional occasions where a check-up was managed as a new problem in Australia in 2013–14 compared with 2004–05.

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[36] 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 can be found in Appendix 4, Table A4.2.

Table 7.6 shows the most frequently managed chronic problems between 2004–05 and 2013–14. The management rate of chronic conditions significantly increased from 51.7 per 100 encounters in 2004–05 to 56.3 per 100 in 2013–14, suggesting approximately 24.3 million more contacts with chronic problems in Australia in 2013–14 than in 2004–05. This may be due in part to increases in the proportion of GP–patient encounters with older patients (aged 65–74 years and 75 years and over), described in Chapter 6.

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

From 2004–05 to 2013–14, there were significant increases in the management rates of:

- depressive disorder (representing 2.1 million more occasions of management in 2013–14 than in 2004–05)
- non-gestational diabetes (equating to an additional 2.5 million contacts in 2013–14 than in 2004–05)
- oesophageal disease (representing 1.4 million more occasions of management)
- atrial fibrillation/flutter (representing 1.2 million more occasions of management)
- hypothyroidism/myxoedema (representing 610,000 more contacts for this problem)
- shoulder syndrome (equating to 410,000 more occasions where this problem was managed)
- unspecified chronic pain (representing 470,000 more contacts for this problem) and chronic back pain (370,000 more contacts for this problem).

The management of asthma decreased, although due to the increased number of encounters claimed through Medicare in 2013–14 (133.4 million) than in 2004–05 (98.2 million) there were about 410,000 more contacts for asthma in 2013–14 than a decade earlier.

Table 7.1: Number of problems managed at encounter, 2004–05 to 2013–14

Number of problems managed at encounter	Per cent of encounters (95% CI)										
	2004–05 (*n* = 94,386)	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)	↑↓[(a)]
One problem	66.5 (65.3–67.7)	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)	↓
Two problems	23.6 (22.9–24.3)	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)	↑
Three problems	7.7 (7.3–8.2)	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)	↑
Four problems	2.2 (1.8–2.5)	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)	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05.

Note: CI – confidence interval.

Table 7.2: Problems managed by ICPC-2 component, 2004–05 to 2013–14

ICPC-2 chapter	Rate per 100 encounters (95% CI) 2004–05 (*n* = 94,386)	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)	↑↓ (a)
Diagnosis, diseases	98.8 (97.1–100.6)	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)	↑
Infections	24.3 (23.6–25.1)	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)	↓
Injuries	7.2 (6.9–7.5)	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)	—
Neoplasms	4.3 (3.9–4.7)	4.0 (3.8–4.3)	4.5 (4.2–4.9)	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)	↑
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 (0.6–0.8)	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)	—
Other diagnoses, diseases	62.3 (60.5–64.1)	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)	↑
Symptoms and complaints	26.4 (25.6–27.3)	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)	↑
Diagnostic and preventive procedures	13.3 (12.6–14.0)	13.7 (13.1–14.4)	13.8 (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 (13.3–14.7)	14.5 (13.7–15.2)	15.7 (14.9–16.6)	↑
Medications, treatments and therapeutics	3.6 (3.3–3.9)	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)	↑
Results	1.4 (1.3–1.5)	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)	↑
Administrative	0.6 (0.5–0.6)	0.7 (0.6–0.8)	0.7 (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 (1.1–1.4)	1.4 (1.3–1.6)	1.4 (1.2–1.6)	↑
Referrals and other RFEs	1.3 (1.2–1.5)	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)	—
Total problems	**145.5 (143.6–147.4)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; and — indicates there was no significant change in 2013–14 compared with 2004–05.

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, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
ICPC-2 chapter	(*n* = 94,386)	(*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)	
General and unspecified	15.1 (14.5–15.7)	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)	↑
Respiratory	19.2 (18.6–19.9)	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)	§
Musculoskeletal	17.7 (17.1–18.2)	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)	—
Skin	17.3 (16.6–18.0)	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)	—
Circulatory	16.2 (15.5–16.9)	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)	§
Psychological	11.4 (10.8–12.0)	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)	↑
Endocrine and metabolic	11.8 (11.2–12.3)	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)	↑
Digestive	9.9 (9.6–10.2)	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)	↑
Female genital system	5.7 (5.3–6.1)	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)	—
Neurological	3.6 (3.5–3.8)	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)	↑
Urology	3.0 (2.9–3.2)	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)	↑
Ear	4.1 (3.9–4.2)	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)	↓
Pregnancy and family planning	3.8 (3.6–4.1)	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)	—
Eye	2.7 (2.5–2.8)	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)	↓

(continued)

Table 7.3a (continued): Problems managed by ICPC-2 chapter, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
ICPC-2 chapter	**(*n* = 94,386)**	**(*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)**	
Male genital system	1.8 (1.6–1.9)	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)	—
Blood & blood-forming organs	1.6 (1.4–1.8)	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)	—
Social problems	0.8 (0.7–0.9)	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)	—
Total problems	**145.5 (143.6–147.4)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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, 2004–05 to 2013–14

ICPC-2 chapter	Per cent of encounters (95% CI)										
	2004–05 (*n* = 94,386)	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)	↑↓ [a]
General and unspecified	14.4 (13.9–14.9)	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)	↑
Respiratory	18.4 (17.8–19.1)	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)	—
Musculoskeletal	16.9 (16.4–17.4)	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)	—
Skin	16.3 (15.8–16.9)	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)	—
Circulatory	15.2 (14.6–15.8)	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)	—
Psychological	10.8 (10.3–11.3)	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)	↑
Endocrine and metabolic	10.8 (10.4–11.3)	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)	↑
Digestive	9.6 (9.3–9.9)	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)	↑
Female genital system	5.3 (5.0–5.6)	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)	—
Neurological	3.6 (3.4–3.7)	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 (3.4–3.7)	3.6 (3.4–3.8)	3.9 (3.7–4.1)	↑
Urology	3.0 (2.8–3.1)	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)	↑
Ear	4.0 (3.8–4.2)	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)	↓
Pregnancy and family planning	3.7 (3.5–4.0)	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)	—
Eye	2.7 (2.5–2.8)	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)	↓

(continued)

Table 7.3b (continued): Presence of at least one problem managed per ICPC-2 chapter, 2004–05 to 2013–14

ICPC-2 chapter	Per cent of encounters (95% CI)										
	2004–05 (*n* = 94,386)	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)	↑↓ (a)
Male genital system	1.7 (1.6–1.9)	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)	—
Blood & blood-forming organs	1.6 (1.4–1.8)	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)	—
Social problems	0.8 (0.7–0.8)	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)	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; and — indicates there was no significant change in 2013–14 compared with 2004–05.

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

Table 7.4: Most frequently managed problems, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Problem managed	(*n* = 94,386)	(*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)	
Hypertension*	8.9 (8.4–9.4)	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)	—
Check-up – all*	6.3 (5.9–6.7)	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)	—
General check-up*	2.1 (1.9–2.2)	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)	↑
Female genital check-up/Pap smear*	1.8 (1.6–2.0)	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)	—
Cardiovascular check-up*	1.0 (0.9–1.1)	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)	—
Immunisation/ vaccination – all*	4.6 (4.2–5.1)	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)	§
Upper respiratory tract infection	5.6 (5.2–5.9)	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)	§
Depression*	3.7 (3.5–3.9)	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)	↑
Diabetes – all*	3.2 (3.0–3.4)	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)	↑
Arthritis – all*	3.9 (3.7–4.2)	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)	—
Osteoarthritis*	2.8 (2.6–3.0)	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)	—
Back complaint*	2.8 (2.6–3.0)	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)	—
Lipid disorder	3.3 (3.1–3.6)	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)	§
Prescription – all*	2.1 (1.8–2.3)	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)	↑

(continued)

Table 7.4 (continued): Most frequently managed problems, 2004–05 to 2013–14

Problem managed	Rate per 100 encounters (95% CI) 2004–05 (*n* = 94,386)	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)	↑↓[(a)]
Gastro-oesophageal reflux disease*	2.1 (1.9–2.2)	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)	↑
Anxiety*	1.7 (1.6–1.9)	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)	↑
Test results*	1.4 (1.3–1.5)	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)	↑
Asthma	2.3 (2.2–2.5)	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)	↓
Acute bronchitis/ bronchiolitis	2.4 (2.2–2.6)	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)	↓
Urinary tract infection*	1.7 (1.6–1.8)	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)	—
Contact dermatitis	1.9 (1.8–2.0)	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)	↓
Sleep disturbance	1.7 (1.5–1.9)	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)	—
Atrial fibrillation/flutter	0.8 (0.7–0.9)	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)	↑
Malignant neoplasm, skin	1.2 (1.0–1.3)	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)	—
Administrative procedure – all*	0.6 (0.5–0.6)	0.7 (0.6–0.8)	0.7 (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 (1.1–1.4)	1.4 (1.3–1.6)	1.4 (1.2–1.6)	↑
Vitamin/nutritional deficiency	0.6 (0.5–0.7)	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)	↑
Gastroenteritis*	1.5 (1.4–1.7)	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)	—
Abnormal test results*	0.8 (0.7–0.9)	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)	↑

(continued)

Table 7.4 (continued): Most frequently managed problems, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Problem managed	(*n* = 94,386)	(*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)	
Sprain/strain*	1.7 (1.5–1.9)	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)	↓
Solar keratosis/sunburn	1.3 (1.1–1.6)	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)	—
Bursitis/tendonitis/ synovitis NOS	0.9 (0.9–1.0)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.0 (0.9–1.1)	1.1 (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)	↑
Skin disease, other	1.1 (0.9–1.2)	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)	—
Ischaemic heart disease*	1.2 (1.1–1.3)	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)	—
Pregnancy*	0.8 (0.7–0.8)	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)	↑
Viral disease, other/NOS	1.2 (1.1–1.4)	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)	—
Sinusitis acute/chronic	1.2 (1.1–1.3)	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)	—
Headache*	1.2 (1.1–1.3)	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)	—
Laceration/cut	0.7 (0.7–0.8)	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)	↑
Fracture*	1.0 (0.9–1.1)	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)	—
Chronic obstructive pulmonary disease	0.8 (0.7–0.9)	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)	↑
Oral contraception*	1.3 (1.2–1.4)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	1.1 (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)	↓
Osteoporosis	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	—

(continued)

Table 7.4 (continued): Most frequently managed problems, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Problem managed	(*n* = 94,386)	(*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)	
Observation/health education/advice/diet – all*	0.8 (0.7–0.9)	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)	—
Acute otitis media/myringitis	1.2 (1.1–1.3)	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)	↓
Tonsillitis*	1.0 (0.9–1.2)	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)	↓
Total problems	**145.5 (143.6–147.4)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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/2123/11883>).

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, 2004–05 to 2013–14

New problem managed	Rate per 100 encounters (95% CI)										↑↓[(a)]
	2004–05 (*n* = 94,386)	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)	
Upper respiratory tract infection	4.3 (4.0–4.6)	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)	§
Immunisation/ vaccination – all*	2.7 (2.4–3.1)	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)	↑
Check-up – all*	2.2 (2.0–2.4)	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)	↑
Acute bronchitis/ bronchiolitis	1.7 (1.5–1.9)	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)	↓
Urinary tract infection*	1.1 (1.0–1.1)	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)	↑
Gastroenteritis*	1.2 (1.1–1.3)	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)	—
Viral disease, other/NOS	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.8 (0.7–0.9)	0.9 (0.8–1.1)	0.9 (0.7–1.0)	0.9 (0.7–1.0)	0.9 (0.7–1.0)	0.9 (0.7–1.1)	0.8 (0.6–0.9)	0.8 (0.7–1.0)	—
Sprain/strain*	1.0 (0.9–1.1)	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)	↓
Malignant neoplasm, skin	0.6 (0.5–0.7)	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 (0.5–0.8)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.7 (0.6–0.7)	0.8 (0.7–0.9)	↑
Total new problems	**55.2 (53.8–56.5)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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/2123/11883>).

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

Table 7.6: Most frequently managed chronic problems, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Chronic problem managed	**(*n* = 94,386)**	**(*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)**	
Hypertension (non-gestational)**	8.9 (8.4–9.4)	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)	—
Depressive disorder**	3.7 (3.5–3.9)	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)	↑
Diabetes (non-gestational)**	3.2 (3.0–3.4)	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)	↑
Chronic arthritis**	3.9 (3.7–4.1)	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)	—
Lipid disorder	3.3 (3.1–3.6)	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)	—
Oesophageal disease	2.1 (2.0–2.3)	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)	↑
Asthma	2.3 (2.2–2.5)	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)	↓
Atrial fibrillation/flutter	0.8 (0.7–0.9)	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)	↑
Malignant neoplasm, skin	1.2 (1.0–1.3)	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)	—
Ischaemic heart disease**	1.2 (1.1–1.3)	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)	—
Chronic obstructive pulmonary disease	0.8 (0.7–0.9)	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)	↑
Back syndrome with radiating pain**	0.9 (0.8–1.0)	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)	—
Osteoporosis	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	1.0 (0.9–1.1)	0.9 (0.8–1.0)	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	—

(continued)

Table 7.6 (continued): Most frequently managed chronic problems, 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Chronic problem managed	**(*n* = 94,386)**	**(*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)**	
Hypothyroidism/ myxoedema	0.6 (0.6–0.7)	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)	↑
Obesity (BMI > 30)	0.8 (0.7–0.9)	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)	—
Chronic skin ulcer (including varicose ulcer)	0.6 (0.5–0.7)	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)	—
Shoulder syndrome (excluding arthritis)**	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.6 (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)	↑
Migraine	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)	0.6 (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)	—
Heart failure	0.7 (0.6–0.8)	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)	—
Dementia (including senile, Alzheimer's)	0.5 (0.3–0.6)	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)	—
Gout	0.6 (0.5–0.7)	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)	—
Chronic pain NOS	0.2 (0.1–0.2)	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)	↑
Anxiety disorder**	0.5 (0.4–0.6)	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)	—
Chronic back pain**	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.3–0.4)	0.4 (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)	↑
Schizophrenia	0.5 (0.4–0.6)	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)	—
Total chronic problems	**51.7 (50.0–53.4)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

** 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/2123/11883>)

Note: CI – confidence interval; BMI – body mass index. This table includes individual chronic problems that were managed at ≥ 0.5 per 100 encounters in 2013–14.

8 Overview of management

This chapter provides an overview of management of problems in general practice from each of the most recent 10 years of the BEACH study from 2004–05 to 2013–14. More detailed analyses of the overview of management in 2013–14 can be found in Chapter 8 in *General practice activity in Australia 2013–14.*[3]

As discussed in Chapter 2 – Methods, 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 had not altered it would not matter which way we measure(d) change.

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 2013–14 than in 2004–05. If more problems are managed, more management actions should result, without any change having occurred in GP management behaviour.

In this, and the following management chapters, we report changes over time 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 the 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 2004–05 to 2013–14 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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 2004–05 and 2013–14, 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/advised for over-the-counter purchase, from 69.8 per 100 problems managed in 2004–05 to 64.9 per 100 problems in 2013–14.
- The major contributor to the above change was a significant decrease in the rate of prescribed medications over the time period, from 57.3 to 52.8 per 100 problems. GP-supplied medications had significantly increased in 2008–09 and 2009–10, but decreased in 2011–12 to a rate not significantly different from the 2004–05 result.

- The introduction of MBS item numbers for practice nurse activity in 2005–06 was associated with a significant decrease in the rate at which clinical treatments were given by GPs, from a peak of 27.0 in 2004–05 to a low point of 19.9 per 100 problems managed in 2006–07. However, the rate of GP-provided clinical treatments then gradually increased such that, while there appears to be a significant difference between the start and end of the decade, the 2013–14 rate is similar to the rate prior to the 2004–05 peak. The original impact of practice nurses on this area of GP workload was no longer apparent, suggesting that by 2013–14 GPs were again performing clinical treatments at a similar rate to that prior to the introduction of practice nurse item numbers.
- There was a significant increase in the rate at which procedural treatments were undertaken, from 10.6 per 100 problems managed in 2004–05 to 11.9 per 100 problems managed in 2013–14.
- The rate of referrals to other health providers significantly increased, from 7.9 to 9.9 per 100 problems managed between 2004–05 and 2013–14, influenced by a 63% increase in referrals to allied health services over the period (from 1.9 to 3.1 per 100 problems managed). It was further influenced by an 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 23%, from 25.2 tests/batteries per 100 problems managed in 2004–05 to 31.0 in 2013–14.
- The rate at which imaging was ordered increased significantly, from 5.7 imaging orders per 100 problems managed in 2004–05 to 6.9 per 100 in 2013–14.

Similar changes between 2004–05 and 2013–14 were apparent in the percentage of problems for which at least one management type was provided (Table 8.2a), and the proportion of encounters where at least one management type was recorded (Table 8.2b).

Over the decade 2004–05 to 2013–14, the proportion of problems for which:

- at least one medication or other treatment type was provided decreased significantly, from 74.9% of problems to 70.9%
- at least one medication was provided decreased significantly (from 55.2% of problems to 50.7%), mainly influenced by a significant decrease in the proportion of problems for which medication was prescribed, from 46.7% to 41.8% over this time
- at least one GP-supplied medication was prescribed/advised/supplied increased significantly over the decade, but spiked in 2009–10 at the time of the H1N1 influenza concerns. This correlates with the observed spike in vaccinations for the same period (Chapter 9)
- at least one medication was advised significantly decreased from 6.2% of problems to 5.1%
- at least one procedure was undertaken, significantly increased from 9.8% to 11.2%
- at least one referral was given, increased significantly (from 7.9% of problems to 9.8%), particularly to allied health services (1.9% to 3.1%), and emergency departments (0.1% to 0.2%)
- at least one investigation was ordered, increased significantly from 16.9% of problems to 19.1%. In 2004–05, the likelihood of at least one pathology test being ordered was 12.2%, but this increased significantly to 13.9%. For imaging tests, the likelihood of at least one being ordered also increased significantly, from 5.2% to 6.1% of problems by 2013–14. 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), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Management type	(*n* = 137,330)	(*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)	
Medications	69.8 (68.3–71.2)	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)	↓
Prescribed	57.3 (55.9–58.7)	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)	↓
GP-supplied	5.5 (5.0–6.0)	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)	§
Advised OTC	6.9 (6.3–7.5)	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)	§
Other treatments	37.6 (36.0–39.2)	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)	§
Clinical*	27.0 (25.6–28.3)	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)	↓
Procedural*	10.6 (10.0–11.3)	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)	↑
Referrals & admissions	7.9 (7.7–8.2)	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)	↑
Medical specialist*	5.3 (5.1–5.5)	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)	↑
Allied health services*	1.9 (1.7–2.0)	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)	↑
Hospital*	0.3 (0.3–0.4)	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)	—
Emergency department*	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (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)	↑
Other referrals*	0.3 (0.3–0.4)	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)	—

(continued)

Table 8.1a (continued): Summary of management (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Management type	(*n* = 137,330)	(*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)	
Pathology	25.2 (24.3–26.2)	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)	↑
Imaging	5.7 (5.5–5.9)	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)	↑
Other investigations	0.8 (0.7–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	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)	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/11883>)

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

Table 8.1b: Summary of management (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Management type	(*n* = 94,386)	(*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)	
Medications	101.5 (99.3–103.8)	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)	§
Prescribed	83.4 (81.2–85.6)	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)	—
GP-supplied	8.1 (7.3–8.8)	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)	§
Advised OTC	10.1 (9.2–10.9)	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)	—
Other treatments	54.7 (52.1–57.3)	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)	§
Clinical*	39.2 (37.1–41.4)	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)	§
Procedural*	15.5 (14.6–16.4)	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)	↑
Referrals & admissions	11.5 (11.1–12.0)	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)	↑
Medical specialist*	7.7 (7.4–8.0)	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)	↑
Allied health services*	2.7 (2.5–2.9)	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)	↑
Hospital*	0.5 (0.4–0.5)	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)	—
Emergency department*	0.2 (0.1–0.2)	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)	—
Other referrals*	0.4 (0.4–0.5)	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)	—

(continued)

Table 8.1b (continued): Summary of management (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Management type	(*n* = 94,386)	(*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)	
Pathology	36.7 (35.2–38.2)	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)	↑
Imaging	8.3 (8.0–8.6)	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)	↑
Other investigations	1.1 (1.0–1.2)	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)	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; and § indicates a noteworthy change during the decade.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/11883>)

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

Table 8.2a: Problems for which at least one management was recorded (per cent of problems), 2004–05 to 2013–14

	Per cent of problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
At least one …	(*n* = 137,330)	(*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)	
Management type	87.1 (86.4–87.7)	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)	↓
Medication or other treatment	74.9 (74.1–75.7)	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)	↓
Medication	55.2 (54.2–56.2)	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)	↓
Prescription	46.7 (45.7–47.8)	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)	↓
GP-supplied	4.4 (4.0–4.7))	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)	↓
Advised OTC	6.2 (5.7–6.7	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)	↓
Other treatment	32.4 (31.1–33.6)	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)	§
Clinical*	23.7 (22.5–24.8)	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)	↓
Procedural*	9.8 (9.3–10.3)	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)	↑
Referrals & admissions	7.9 (7.7–8.2)	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)	↑
Medical specialist*	5.4 (5.2–5.6)	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)	↑
Allied health services*	1.9 (1.7–2.0)	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)	↑
Hospital*	0.3 (0.3–0.4)	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)	—

(continued)

Table 8.2a (continued): Problems for which at least one management was recorded (per cent of problems), 2004–05 to 2013–14

	Per cent of problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓ (a)
At least one …	(*n* = 137,330)	(*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)	
Emergency department*	0.1 (0.1–0.1)	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)	↑
Other referrals*	0.3 (0.3–0.4)	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)	—
Investigation	16.9 (16.4–17.3)	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)	↑
Pathology order	12.2 (11.8–12.6)	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)	↑
Imaging order	5.2 (5.0–5.4)	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)	↑
Other investigation	0.7 (0.7–0.8)	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)	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/11883>)

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), 2004–05 to 2013–14

	Per cent of encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
At least one…	(*n* = 94,386)	(*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)	
Management type	91.9 (91.3–92.5)	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)	—
Medication or other treatment	82.4 (81.6–83.2)	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)	—
Medication	64.3 (63.4–65.2)	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)	↓
Prescription	54.8 (53.8–55.8)	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)	↓
GP-supplied	6.2 (5.7–6.7)	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)	↑
Advised OTC	8.7 (8.1–9.4)	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)	—
Other treatment	41.2 (39.7–42.8)	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)	§
Clinical*	30.5 (29.1–32.0)	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)	§
Procedural*	13.8 (13.1–14.6)	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)	↑
Referrals & admissions	10.9 (10.5–11.3)	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)	↑
Medical specialist*	7.5 (7.2–7.8)	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)	↑
Allied health services*	2.6 (2.5–2.8)	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)	↑
Hospital*	0.5 (0.4–0.5)	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)	—

(continued)

Table 8.2b (continued): Proportion of total encounters at which at least one management was recorded (per cent of encounters), 2004–05 to 2013–14

	Per cent of encounters (95% CI)										
At least one …	2004–05 (*n* = 94,386)	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)	↑↓(a)
Emergency department*	0.2 (0.1–0.2)	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)	↑
Other referrals*	0.4 (0.4–0.5)	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)	—
Investigation	21.7 (21.1–22.4)	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)	↑
Pathology order	15.7 (15.2–16.3)	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)	↑
Imaging order	7.3 (7.0–7.6)	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)	↑
Other investigation	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 (0.8–1.0)	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)	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4 <hdl.handle.net/2123/11883>)

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 2004–05 to 2013–14. 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 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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 2013–14, there were 35.2 million more encounters claimed through Medicare than there were in 2004–05 (133.4 million versus 98.2 million). It should be noted that because of this increase, it is possible that a rate of medication per 100 encounters that shows a decrease over time can result in an increase in the extrapolated national estimates of that medication.

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.

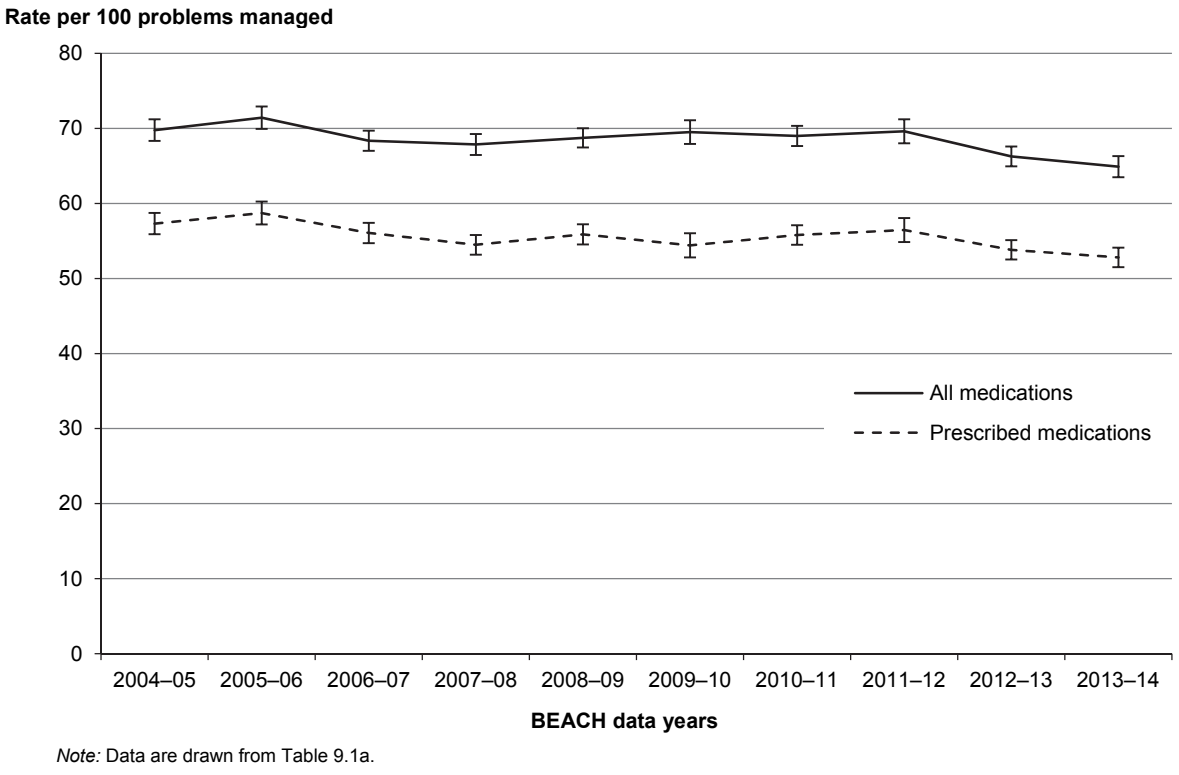
Medication data for the 10 years 2004–05 to 2013–14, are reported in two ways in this chapter: as rates per 100 problems managed and as rates per 100 encounters. In describing data over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase in the 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 are therefore based on results shown in Tables 9.1b, 9.2b, 9.3b, 9.4b, 9.5b and 9.6b.

Figure 9.1 shows that between 2004–05 and 2013–14, 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 marginal increase per 100 problems managed and a significant increase per 100 encounters between 2004–05 and 2013–14 (Tables 9.1a and 9.1b). The peak in rate of GP-supplied medications in 2009–10 reflects a high rate of influenza virus vaccine which coincided with the H1N1 influenza pandemic of 2009.

There was a significant decrease in the rate per 100 problems at which GPs advised medications for over-the-counter purchase (Table 9.1a). Again, Table 9.1b shows those changes were not significant per 100 encounters.



Note: Data are drawn from Table 9.1a.

Figure 9.1: All medications and prescribed medications: rates per 100 problems managed, 2004–05 to 2013–14 (95% confidence intervals)

9.1 Prescribed medications

The rate at which medications were prescribed per 100 problems managed decreased significantly from 2004–05 (57.3 per 100 problems) to 2013–14 (52.8 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 29.5 million more prescriptions being given nationally by GPs in 2013–14 than in 2004–05.

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 it is more stable 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 2.2 per 100 problems managed in 2004–05 to 2.7 in 2013–14. The extrapolated national effect of this change (calculated from the encounter rate from Table 9.2b) was about 2.7 million more prescriptions for drugs in this group given in 2013–14 than in 2004–05
- lipid modifying agents, from 2.1 per 100 problems in 2004–05 to 2.5 in 2013–14. The extrapolated national effect of this change was that about 2.3 million more prescriptions for drugs in this group were given in 2013–14 than in 2004–05

- drugs for acid-related digestive disorders, from 1.9 per 100 problems in 2004–05 to 2.3 in 2013–14. The extrapolated national effect of this change was that about 2.2 million more prescriptions for drugs in this group were given in 2013–14 than in 2004–05
- corticosteroids for systemic use, from 0.8 per 100 problems in 2004–05 to 1.1 in 2013–14, an estimated 1.1 million more prescriptions nationally in 2013–14 than in 2004–05
- antiepileptics, from 0.4 per 100 problems in 2004–05 to 0.7 in 2013–14, with an extrapolated national effect of 980,000 more prescriptions nationally in 2013–14.

There were also significant decreases in the prescribing rate per 100 problems managed for some drug groups. As earlier suggested, the increase in number of encounters claimed through Medicare over the decade could cause the decreases in medication numbers in the extrapolated national estimates to be less than they would have been had Medicare encounter figures remained steady (a number of extrapolated estimates even showed an increase). 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 9.6 per 100 problems managed in 2004–05 to 8.0 in 2013–14, but the extrapolated national effect of this change (calculated on the encounter rate from Table 9.2b) was that about 3.1 million more prescriptions for drugs in this group were given in 2013–14 than in 2004–05 due to the increase in encounter numbers nationally
- drugs for obstructive airway disease, from 2.6 per 100 problems managed in 2004–05 to 2.2 in 2013–14, but the estimated national effect of this change was that about 940,000 more prescriptions for drugs in this group were given in 2013–14 than in 2004–05 due to the increase in encounter numbers
- anti-inflammatory and antirheumatic products, from 3.1 per 100 problems in 2004–05 to 1.9 in 2013–14, with an extrapolated national effect of about 550,000 fewer prescriptions for these products nationally in 2013–14 than in 2004–05
- dermatological corticosteroids, from 1.9 per 100 problems in 2004–05 to 1.5 in 2013–14, but this led to an extrapolated national effect of about 450,000 more prescriptions for these topical products nationally in 2013–14 than in 2004–05
- sex hormones and modulators of the genital system, from 2.1 per 100 problems in 2004–05 to 1.5 in 2013–14, but this led to an extrapolated national effect of about 24,000 more prescriptions for them nationally in 2013–14 than in 2004–05
- calcium channel blockers, from 1.4 per 100 problems in 2004–05 to 1.0 in 2013–14, but this led to an extrapolated national effect of about 170,000 more prescriptions for them nationally in 2013–14 than in 2004–05
- ophthalmologicals, from 1.2 per 100 problems in 2004–05 to 0.8 in 2013–14, but an estimated increase of 65,000 prescriptions for them nationally in 2013–14 than in 2004–05
- vaccines, from 2.0 per 100 problems in 2004–05 to 0.8 in 2013–14, an estimated decrease of 1.1 million vaccine prescriptions given nationally in 2013–14 than in 2004–05.

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 psychological problems, and the rise in drugs for acid-related disorders matches the increase in digestive problems managed. Other changes coincide with policy initiatives such as the rise in rates of lipid modifying agents which accelerated in 2006–07 when criteria for subsidised access to these medications through the Pharmaceutical Benefits Scheme (PBS) were broadened.

Decreases in prescribing rates of drug groups can sometimes be linked to medications within the group becoming available over-the-counter (e.g. salbutamol; the 'morning after pill' contraceptive); becoming more likely to be supplied directly to the patient by the GP (e.g. vaccines); or being included in combination medication products (e.g. cardiovascular agents). The decrease in systemic antibacterials over the decade may be linked to improving public awareness of the possible negative effects of antibiotic overuse. It could also be associated with significant decreases in management rates of infections, including acute bronchitis, acute otitis media and tonsillitis, seen in Chapter 7. However, the decrease in antibacterials was significant not only between 2004–05 and 2013–14 but also between 2012–13 and 2013–14. This sudden decrease coincided with a significant fall in management rates of acute bronchitis and acute otitis media from 2012–13 to 2013–14.

When no statistically significant change occurs in the prescribing rate per 100 problems managed, there may still be a national increase due to the increased attendance rates. An example of this is the prescribing of drugs for functional gastrointestinal disorders such as antispasmodics, the rate of which remained steady over the study period. However, we estimate that due to the increase in attendances, about 250,000 more were prescribed in 2013–14 than in 2004–05.

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 an increased prescription rate per 100 problems managed of:

- the opioid oxycodone, which demonstrated a near threefold increase from 0.4 per 100 problems managed in 2004–05 to 1.1 in 2013–14, with an extrapolated national effect of about 1.8 million more prescriptions for oxycodone nationally in 2013–14 than 10 years earlier (calculated from the encounter rate in Table 9.3b)
- the proton pump inhibitor esomeprazole, which more than doubled from 0.5 per 100 problems in 2004–05 to 1.1 per 100 in 2013–14, with an extrapolated national effect of 1.6 million more esomeprazole prescriptions given in 2013–14 than in 2004–05
- 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 0.8 per 100 in 2013–14, an estimated 1.4 million more prescriptions than in 2007–08
- the angiotensin-converting enzyme (ACE) inhibitor perindopril, which rose from 0.6 per 100 problems in 2004–05 to 0.7 in 2013–14, an extrapolated increase of 820,000 between the two study points
- another proton pump inhibitor pantoprazole, which rose from 0.3 per 100 problems in 2004–05 to 0.5 in 2013–14, an extrapolated increase of 540,000 more pantoprazole prescriptions between the two study points.

In 2013–14, a large number of medications were prescribed less frequently than in 2004–05, some decreases being associated with current over-the-counter availability, GP direct supply, inclusion in a combination medication, or being superseded by newer drugs within the group. 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 2004–05 to 1.6 per 100 problems in 2013–14, with an extrapolated national effect of about 100,000 fewer prescriptions for this product nationally in 2013–14 than in 2004–05
- the analgesic paracetamol in combination products with codeine, from 1.4 per 100 problems in 2004–05 to 1.0 per 100 problems in 2013–14, but this decrease showed an extrapolated national effect of about 40,000 more prescriptions for these products nationally in 2013–14 than in 2004–05

- the lipid modifying agent simvastatin, from 0.7 per 100 problems in 2004–05 to 0.3 in 2013–14, suggesting 410,000 fewer prescriptions nationally for simvastatin in 2013–14 than in 2004–05, perhaps due to the increased prescribing of rosuvastatin noted above
- the non-steroid anti-inflammatory celecoxib, from 0.6 per 100 problems in 2004–05 to 0.3 in 2013–14, suggesting 220,000 fewer prescriptions nationally for celecoxib in 2013–14 than in 2004–05
- another non-steroid anti-inflammatory drug diclofenac sodium systemic, from 0.7 per 100 problems in 2004–05 to 0.3 in 2013–14, giving an estimated 320,000 fewer prescriptions for this drug at the end of the study period.

Number of repeats ordered

The pattern of the number of repeat prescriptions recorded by GPs changed between 2004–05 and 2013–14 (Table 9.4). There was a significant decrease in the proportion of prescribed medications with no repeats, one, three or four repeats ordered. On the other hand, there was a significant increase in the proportion of prescriptions for which five repeats were recorded. The proportion of prescriptions given with five repeats increased from 28.3% in 2004–05 to 37.8% in 2013–14. 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

Rate of total GP-supplied medications per 100 problems managed was marginally higher in 2013–14 (6.5) than in 2004–05 (5.5) (Table 9.5a). The peak in 2009–10 probably reflects the high rate of influenza virus vaccine supply 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 2004–05 and 2013–14. They were all vaccines, except for vitamin B12, which showed a marginal increase. Rates for some vaccines increased significantly over the period. The supply of influenza virus vaccine rose from 0.9 per 100 problems managed in 2004–05 to 2.1 per 100 in 2013–14, and the extrapolated national effect of this change is that influenza virus vaccine was supplied 3.2 million more times in 2013–14 than in 2004–05. The move away from prescribing towards GP supply of the vaccine was evident in this significant increase in its supply, which coincided with the significant decrease in its prescribing rate (Table 9.3a). This change followed federal government policy from 2001, which made the vaccine available free of charge to all Australians aged 65 years and over, to Aboriginal and Torres Strait Islander people aged 50 years and over, and to younger Aboriginal and Torres Strait Islander persons with health risks. Vaccines can be ordered by the GP directly from the supplier.

9.3 Medications advised for over-the-counter purchase

Table 9.6a shows a significant decrease in the rate per 100 problems managed for total advised over-the-counter 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 (see Chapter 7).

Table 9.1a: Rates of medications prescribed, advised for over-the-counter purchase, supplied (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)									
Medications	**2004–05 (*n* = 137,330)**	**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)**	↑↓ (a)
Prescribed	57.3 (55.9–58.7)	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)	↓
GP-supplied	5.5 (5.0–6.0)	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)	↑
Advised OTC	6.9 (6.3–7.5)	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)	↓
Total medications	**69.8 (68.3–71.2)**	**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)**	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05.

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

Table 9.1b: Rates of medications prescribed, advised for over-the-counter purchase, supplied (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)									
Medications	**2004–05 (*n* = 94,386)**	**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)**	↑↓ (a)
Prescribed	83.4 (81.2–85.6)	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)	—
GP-supplied	8.1 (7.3–8.8)	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)	↑
Advised OTC	10.1 (9.2–10.9)	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)	—
Total medications	**101.5 (99.3–103.8)**	**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)**	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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

Table 9.2a: Prescribed medications by ATC level 2 (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
ATC level 2	(*n* = 137,330)	(*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)	
Antibacterials for systemic use	9.6 (9.2–10.1)	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)	↓
Analgesics	5.3 (5.1–5.6)	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)	—
Agents acting on the renin-angiotensin system	3.8 (3.6–4.0)	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)	—
Psycholeptics	3.4 (3.1–3.6)	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)	↓
Psychoanaleptics	2.2 (2.0–2.3)	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)	↑
Lipid modifying agents	2.1 (2.0–2.2)	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)	↑
Drugs for acid related disorders	1.9 (1.8–2.0)	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)	↑
Drugs for obstructive airway diseases	2.6 (2.5–2.8)	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)	↓
Anti-inflammatory and antirheumatic products	3.1 (2.9–3.3)	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)	↓
Drugs used in diabetes	1.4 (1.3–1.5)	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)	↑
Corticosteroids, dermatological preparations	1.9 (1.8–2.0)	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)	↓
Sex hormones and modulators of the genital system	2.1 (2.0–2.3)	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)	↓
Antithrombotic agents	1.2 (1.1–1.4)	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)	—

(continued)

Table 9.2a (continued): Prescribed medications by ATC level 2 (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
ATC level 2	(*n* = 137,330)	(*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)	
Corticosteroids for systemic use	0.8 (0.8–0.9)	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)	↑
Beta blocking agents	1.1 (1.1–1.2)	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)	↓
Calcium channel blockers	1.4 (1.3–1.5)	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)	↓
Ophthalmologicals	1.2 (1.1–1.3)	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)	↓
Vaccines	2.0 (1.8–2.3)	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)	↓
Antiepileptics	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 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.7 (0.7–0.8)	↑
Diuretics	0.9 (0.8–1.0)	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)	↓
Other nervous system drugs	0.4 (0.2–0.5)	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)	—
Nasal preparations	0.5 (0.5–0.6)	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)	—
Thyroid therapy	0.5 (0.4–0.5)	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)	↑
Drugs for functional gastrointestinal disorders	0.5 (0.4–0.5)	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)	—
Otologicals	0.6 (0.5–0.7)	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)	↓
Total prescribed medications	**57.3 (55.9–58.7)**	**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)**	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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

Table 9.2b: Prescribed medications by ATC level 2 (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
ATC level 2	2004–05 (*n* = 94,386)	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)	↑↓[a]
Antibacterials for systemic use	14.0 (13.5–14.6)	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)	↓
Analgesics	7.8 (7.4–8.2)	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)	↑
Agents acting on the renin-angiotensin system	5.5 (5.2–5.8)	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)	↑
Psycholeptics	4.9 (4.6–5.2)	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)	—
Psychoanaleptics	3.1 (3.0–3.3)	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)	↑
Lipid modifying agents	3.0 (2.8–3.2)	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)	↑
Drugs for acid related disorders	2.7 (2.5–2.9)	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)	↑
Drugs for obstructive airway diseases	3.8 (3.6–4.1)	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)	—
Anti-inflammatory and antirheumatic products	4.5 (4.2–4.7)	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)	↓
Drugs used in diabetes	2.1 (1.9–2.2)	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)	↑
Corticosteroids, dermatological preparations	2.8 (2.6–2.9)	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)	↓
Sex hormones and modulators of the genital system	3.1 (2.9–3.3)	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)	↓
Antithrombotic agents	1.8 (1.6–2.0)	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)	↑

(continued)

Table 9.2b (continued): Prescribed medications by ATC level 2 (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
ATC level 2	(*n* = 94,386)	(*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)	
Corticosteroids for systemic use	1.2 (1.1–1.4)	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)	↑
Beta blocking agents	1.7 (1.5–1.8)	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)	—
Calcium channel blockers	2.0 (1.8–2.1)	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)	↓
Ophthalmologicals	1.7 (1.6–1.8)	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)	↓
Vaccines	2.9 (2.6–3.3)	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)	↓
Antiepileptics	0.5 (0.5–0.6)	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)	↑
Diuretics	1.3 (1.2–1.5)	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)	↓
Other nervous system drugs	0.5 (0.3–0.7)	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)	—
Nasal preparations	0.8 (0.7–0.9)	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)	—
Thyroid therapy	0.7 (0.6–0.7)	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)	↑
Drugs for functional gastrointestinal disorders	0.7 (0.6–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.7–0.9)	0.7 (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)	—
Otologicals	0.9 (0.8–1.0)	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)	↓
Cardiac therapy	0.8 (0.7–0.9)	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)	—

(continued)

Table 9.2b (continued): Prescribed medications by ATC level 2 (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑/↓[a]
ATC level 2	(*n* = 94,386)	(*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)	
Urologicals	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.7)	↑
Antianemic preparations	0.7 (0.7–0.8)	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)	↓
Antibiotics and chemotherapeutics for dermatological use	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (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)	↑
Drugs for treatment of bone diseases	0.5 (0.4–0.5)	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)	↑
Drugs for constipation	0.3 (0.3–0.4)	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)	↑
Antigout preparations	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (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)	—
Antidiarrheals, intestinal anti-inflammatory/anti-infective agents	0.6 (0.5–0.6)	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 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	↓
Total prescribed medications	**83.4 (81.2–85.6)**	**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)**	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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

Table 9.3a: Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic drug	(*n* = 137,330)	(*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)	
Cephalexin	1.6 (1.5–1.8)	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)	—
Amoxycillin	2.4 (2.2–2.6)	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)	↓
Paracetamol [plain]	1.8 (1.7–2.0)	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)	↓
Oxycodone	0.4 (0.3–0.4)	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)	↑
Amoxycillin/potassium clavulanate	1.2 (1.0–1.3)	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)	—
Esomeprazole	0.5 (0.4–0.5)	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)	↑
Paracetamol/codeine [all]	1.4 (1.2–1.5)	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)	↓
Atorvastatin	1.0 (0.9–1.0)	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)	§
Rosuvastatin	N/A	N/A	0.0[ǂ] (0.0–0.1)	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)	↑
Salbutamol	1.0 (0.9–1.1)	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)	↓
Metformin	0.7 (0.6–0.7)	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)	↑
Diazepam	0.7 (0.7–0.8)	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)	—
Perindopril	0.6 (0.5–0.6)	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)	↑
Warfarin sodium	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (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)	—

(continued)

Table 9.3a (continued): Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic drug	(*n* = 137,330)	(*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)	
Temazepam	0.8 (0.7–0.8)	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)	↓
Tramadol	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.5 (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)	↓
Meloxicam	0.6 (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)	0.6 (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)	—
Irbesartan	0.6 (0.5–0.7)	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)	—
Roxithromycin	0.8 (0.7–0.9)	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)	↓
Thyroxine	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 (0.4–0.4)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	↑
Fluticasone/salmeterol	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (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)	↓
Doxycycline	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	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)	↓
Levonorgestrel/ ethinyloestradiol	0.7 (0.6–0.8)	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)	↓
Pantoprazole	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (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)	↑
Betamethasone topical	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	—
Atenolol	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 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	↓
Mometasone	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.5–0.5)	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 (0.4–0.4)	0.4 (0.3–0.4)	↓
Amlodipine	0.4 (0.4–0.5)	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)	↓

(continued)

Table 9.3a (continued): Most frequently prescribed medications by CAPS generic (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓ (a)
Generic drug	(*n* = 137,330)	(*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)	
Chloramphenicol eye	0.6 (0.6–0.7)	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)	↓
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 (0.5–0.6)	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)	↓
Generic medications frequently prescribed in previous years											
Irbesartan/ hydrochlorothiazide	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 (0.4–0.5)	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)	↓
Simvastatin	0.7 (0.7–0.8)	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)	↓
Celecoxib	0.6 (0.6–0.7)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	↓
Diclofenac sodium systemic	0.7 (0.6–0.7)	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)	↓
Influenza virus vaccine	0.6 (0.5–0.7)	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)	↓
Cefaclor monohydrate	0.6 (0.5–0.7)	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)	↓
Total prescribed medications	**57.3 (55.9–58.7)**	**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)**	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; § 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: 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), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic drug	(*n* = 94,386)	(*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)	
Cephalexin	2.4 (2.2–2.6)	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)	—
Amoxycillin	3.5 (3.2–3.8)	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)	↓
Paracetamol [plain]	2.7 (2.4–2.9)	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)	—
Oxycodone	0.5 (0.5–0.6)	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)	↑
Amoxycillin/potassium clavulanate	1.7 (1.5–1.8)	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)	—
Esomeprazole	0.7 (0.6–0.8)	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)	↑
Paracetamol/codeine [all]	2.0 (1.8–2.2)	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)	↓
Atorvastatin	1.4 (1.3–1.5)	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)	§
Rosuvastatin	N/A	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)	↑
Salbutamol	1.4 (1.3–1.5)	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 (1.2–1.6)	1.4 (1.2–1.5)	1.3 (1.2–1.5)	1.3 (1.2–1.4)	1.2 (1.1–1.4)	—
Metformin	1.0 (0.9–1.0)	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)	↑
Diazepam	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 (1.0–1.3)	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)	—
Perindopril	0.8 (0.7–0.9)	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)	↑
Warfarin sodium	0.9 (0.8–1.1)	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)	—

(continued)

Table 9.3b (continued): Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic drug	(*n* = 94,386)	(*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)	
Temazepam	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)	1.0 (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)	—
Tramadol	1.0 (0.9–1.1)	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)	—
Meloxicam	0.8 (0.7–0.9)	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)	—
Irbesartan	0.9 (0.8–1.0)	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)	—
Roxithromycin	1.1 (1.0–1.3)	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)	↓
Thyroxine	0.6 (0.5–0.7)	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)	↑
Fluticasone/salmeterol	0.9 (0.8–0.9)	0.9 (0.8–1.0)	0.9 (0.8–0.9)	0.8 (0.7–0.9)	0.9 (0.8–1.0)	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)	—
Doxycycline	0.7 (0.7–0.8)	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)	—
Levonorgestrel/ ethinyloestradiol	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 (0.8–0.9)	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)	↓
Pantoprazole	0.4 (0.4–0.5)	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)	↑
Betamethasone topical	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 (0.7–0.8)	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)	—
Buprenorphine	0.1 (0.0–0.1)	0.2 (0.0–0.4)	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)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.7 (0.6–0.8)	↑
Atenolol	0.9 (0.8–1.0)	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)	↓
Frusemide	0.6 (0.5–0.7)	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)	—

(continued)

Table 9.3b (continued): Most frequently prescribed medications by CAPS generic (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
Generic drug	**2004–05 (*n* = 94,386)**	**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)**	↑/↓[a]
Prednisolone	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 (0.5–0.6)	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)	—
Candesartan cilexetil	0.3 (0.3–0.4)	0.4 (0.4–0.5)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	↑
Generic medications frequently prescribed in previous years											
Chloramphenicol eye	0.9 (0.9–1.0)	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)	↓
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)	0.8 (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)	↓
Simvastatin	1.1 (1.0–1.2)	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)	↓
Celecoxib	0.9 (0.8–1.0)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	↓
Diclofenac sodium systemic	1.0 (0.8–1.1)	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)	↓
Influenza virus vaccine	0.9 (0.7–1.1)	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)	↓
Omeprazole	0.6 (0.6–0.7)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	↓
Cefaclor monohydrate	0.8 (0.7–1.0)	0.8 (0.6–1.0)	0.8 (0.6–0.9)	0.6 (0.5–0.7)	0.8 (0.7–0.9)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	↓
Total prescribed medications	**83.4 (81.2–85.6)**	**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)**	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; § 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: 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, 2004–05 to 2013–14

	Per cent of prescriptions (95% CI)[a]										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[b]
Number of repeats	(*n* = 78,711)	(*n* = 87,543)	(*n* = 76,430)	(*n* = 79,051)	(*n* = 83,509)	(*n* = 84,539)	(*n* = 81,543)	(*n* = 85,980)	(*n* = 82,079)	(*n* = 80,046)	
No repeats	38.5 (36.8–40.2)	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)	↓
One repeat	17.6 (16.7–18.4)	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)	↓
Two repeats	10.6 (10.0–11.3)	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)	—
Three or four repeats	4.8 (4.4–5.2)	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)	↓
Five repeats	28.3 (27.0–29.6)	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)	↑
Six or more repeats	0.2 (0.1–0.3)	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)	—

(a) Missing data removed.

(b) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

Note: CI – confidence interval.

Table 9.5a: Medications most frequently supplied by GPs (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic medication	**(*n* = 137,330)**	**(*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)**	
Influenza virus vaccine	0.9 (0.6–1.1)	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)	↑
Pneumococcal vaccine	0.3 (0.2–0.4)	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)	—
Vitamin B12 (cobalamin)	0.1 (0.1–0.2)	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)	↑
Diphtheria/pertussis/ tetanus/hepatitis B/polio/ Haemophilus influenzae B vaccine	N/A	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)	↑
Mumps/measles/rubella vaccine	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)	0.3 (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)	↑
Rotavirus vaccine	N/A	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)	↑
Triple antigen (diphtheria/ pertussis/tetanus)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.3 (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)	↓
ADT/CDT (diphtheria/ tetanus) vaccine	0.1 (0.1–0.2)	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)	↓
Diphtheria/pertussis/ tetanus/polio vaccine	0.0Ŧ (0.0–0.0)	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)	↑
Meningitis vaccine	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 (0.0–0.1)	↓
Total GP-supplied medications	**5.5 (5.0–6.0)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Generic medication	**(*n* = 94,386)**	**(*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)**	
Influenza virus vaccine	1.2 (0.9–1.6)	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)	↑
Pneumococcal vaccine	0.4 (0.3–0.5)	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)	↑
Vitamin B12 (cobalamin)	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 (0.3–0.5)	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)	↑
Diphtheria/pertussis/ tetanus/hepatitis B/polio/ Haemophilus influenzae B vaccine	N/A	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)	↑
Mumps/measles/rubella vaccine	0.3 (0.2–0.3)	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)	↑
Rotavirus vaccine	N/A	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)	↑
Triple antigen (diphtheria/ pertussis/tetanus)	0.3 (0.2–0.3)	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)	↓
ADT/CDT (diphtheria/ tetanus) vaccine	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)	0.2 (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)	—
Diphtheria/pertussis/ tetanus/polio vaccine	0.0[Ŧ] (0.0–0.0)	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)	↑
Haemophilus influenzae B vaccine	0.2 (0.2–0.2)	0.3 (0.2–0.4)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	↓
Total GP-supplied medications	**8.1 (7.3–8.8)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic drug	**(*n* = 137,330)**	**(*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)**	
Paracetamol [plain]	1.6 (1.4–1.8)	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)	—
Ibuprofen	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	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)	—
Vitamin D3 (cholecalciferol)	0.0Ŧ (0.0–0.0)	0.0Ŧ (0.0–0.0)	0.0Ŧ (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)	↑
Loratadine	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	—
Sodium/potassium/citric acid/glucose	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 (0.1–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	↑
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)	0.1 (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)	—
Diclofenac topical	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 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	↓
Saline bath/solution/ gargle	0.2 (0.1–0.2)	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)	↓
Simple analgesics	0.1 (0.1–0.1)	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.0Ŧ (0.0–0.1)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	—
Cream/ointment/lotion NEC	0.1 (0.1–0.1)	0.0Ŧ (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.1 (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 (0.0–0.1)	—
Total OTC medications	**6.9 (6.3–7.5)**	**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)**	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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; NEC – not elsewhere classified; OTC – over-the-counter medication.

Table 9.6b: Most frequently advised over-the-counter medications (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Generic drug	**(*n* = 94,386)**	**(*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)**	
Paracetamol [plain]	2.3 (2.0–2.6)	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)	—
Ibuprofen	0.5 (0.4–0.6)	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)	—
Vitamin D3 (cholecalciferol)	0.0Ŧ (0.0–0.0)	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)	↑
Loratadine	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)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	↑
Sodium/potassium/citric acid/glucose	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (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)	↑
Sodium chloride topical nasal	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 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.1–0.2)	—
Diclofenac topical	0.2 (0.2–0.3)	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)	↓
Saline bath/solution/ gargle	0.2 (0.2–0.3)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.2 (0.1–0.2)	↓
Simple analgesics	0.2 (0.1–0.2)	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)	—
Cream/ointment/lotion NEC	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 (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	↑
Total OTC medications	**10.1 (9.2–10.9)**	**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)**	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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; NEC – not elsewhere classified; OTC – over-the-counter medication

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, 2004–05 to 2013–14. 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 (since 2005–06) to indicate if each of these was done by a practice nurse (PN).

In 2004, four Medicare item numbers were introduced into the Medicare Benefits Schedule (MBS) that allowed GPs to claim for specified tasks done by a practice nurse under the direction of the GP.[28] Over the years, new PN item numbers were added to the MBS and some items were broadened, to cover work done by Aboriginal health workers (AHW).

In January 2012, the Australian Government significantly altered the payment structure for PN 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. The PNIP "provides incentive payments to practices…by consolidating funding arrangements under the Practice Incentive Program (PIP) Practice Nurse Incentive". Six of the MBS items for PN/AHW activities were removed and the funds redirected into a single payment to eligible general practices employing PN/AHW staff.[63]

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. However, in the analysis of procedural treatments (Section 10.2), injections given in provision of vaccines have been removed, as this action is already counted and reported in medications.

In Section 10.3, treatments provided by the PN/AHW (including the injections given for vaccination) are reported separately, to provide a picture of the work they undertake in association with GP–patient encounters. Routine clinical measurements or observations, such as measurements of blood pressure and physical examinations, were not included in 2004–05. With the inclusion of practice nurse activities in BEACH since 2005–06, clinical measurement or observations have been recorded, but only when done by the PN/AHW.

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.

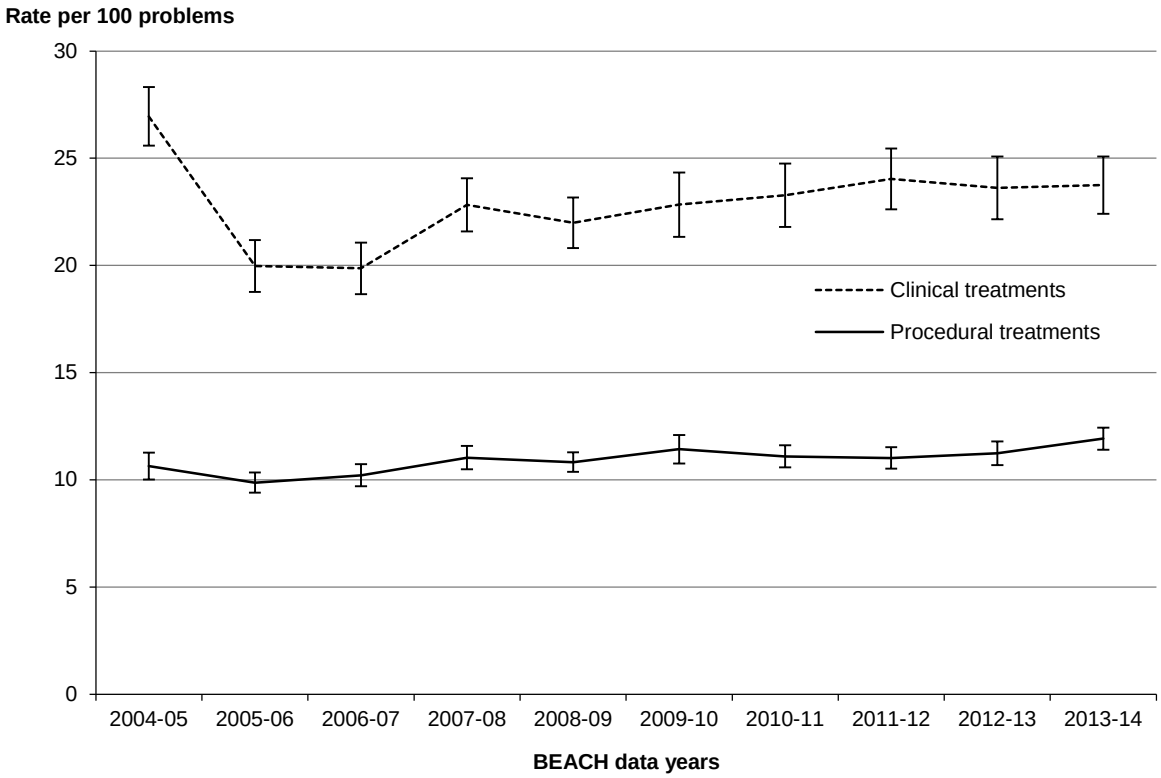
The direction and type of change from 2004–05 to 2013–14 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) comparing 2013–14 with 2004–05; ↑/↓ indicates a marginally significant change comparing 2013–14 with 2004–05; — indicates there was no significant change across the decade; and § indicates no change comparing 2013–14 with 2004–05 but a noteworthy change within the decade.

Other treatments data for the 10 years 2004–05 to 2013–14, 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.

Changes in the rate per 100 encounters are extrapolated to estimate the national increase or decrease in the other treatments provided between 2004–05 and 2013–14. 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 2013–14 can be found in Chapter 10 of *General practice activity in Australia 2013–14*.[3]

Figure 10.1 demonstrates the non-linear change in the rate at which clinical treatments were provided from 2004–05 to 2013–14. The rate of clinical treatments per 100 problems managed dropped dramatically between 2004–05 and 2005–06, recovered somewhat in 2007–08, and then remained steady to 2013–14 at a significantly lower rate than 10 years earlier. In contrast, the rate at which procedural treatments were performed increased, just reaching a significantly higher level in 2013–14 than 10 years earlier.



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

Figure 10.1: Clinical and procedural treatments per 100 problems, 2004–05 to 2013–14 (95% confidence intervals)

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

There was a significant decrease in the rate at which clinical treatments were provided per 100 problems managed when comparing 2004–05 and 2013–14, however the change over the decade was not linear (Table 10.1a).

In November 2004, practice nurse Medicare item numbers were introduced. Changes were made to the BEACH recording form to include practice nurse activity associated with the encounter in the 2005–06 BEACH year. In 2005–06, there was a sudden and significant decrease in the rate at which clinical treatments were provided by the GP or the PN/AHW at GP–patient encounters, from 27.0 clinical treatments per 100 problems managed in 2004–05, to 20.0 per 100 problems in 2005–06. This was followed by a significant increase between 2006–07 and 2007–08 (from 19.9 to 22.8 per 100 problems). From there, the rate remained steady, and in 2013–14 clinical treatments were still provided at a significantly lower rate than 10 years earlier.

- This pattern of change was reflected in the rate at which counselling/advice about nutrition/weight and exercise were provided. The rates of these clinical treatments significantly decreased between 2004–05 and 2005–06, but have since been steady, remaining significantly lower in 2013–14 than 10 years earlier. 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 and/or other allied health professionals.
- General advice and education was the most frequently recorded clinical treatment throughout the decade. There was a significant decrease between 2004–05 and 2005–06, but in recent years the rate has remained at around 3.8 per 100 problems managed. In 2013–14, the rate was not significantly different from 10 years earlier.
- The rate at which other administrative procedures/documents were provided significantly increased over the decade, however the changes were not linear. From 2004–05 to 2005–06, the rate decreased marginally from 0.9 to 0.7 per 100 problems. There was a gradual increase from 2005–06 onwards, to 1.7 per 100 problems in 2013–14, almost double the rate in 2004–05 (Table 10.1a).

Although there was a significant decrease in the rate at which clinical treatments were provided per 100 problems (Table 10.1a), there was no significant change in the rate per 100 encounters when comparing 2004–05 and 2013–14 (Table 10.1b).

There were more problems managed per GP–patient encounter (see Section 7.1) and more encounters claimed through Medicare in 2013–14 than in 2004–05. The increased number of encounters due to the increased attendance rate over the study period affects the number of clinical treatments provided nationally (see Table 2.1). We estimate that as a result, 11.7 million more clinical treatments were provided at GP–patient encounters nationally in 2013–14 than in 2004–05.

For every 100 GP–patient encounters in 2004–05, one or more clinical treatments were provided in the management of 34.4 problems. In 2013–14, clinical treatments were provided for 33.8 problems per 100 encounters. Although there was no significant change over the decade, there were significant changes in the rate at which several specific problems were managed with one or more clinical treatments (Table 10.2).

- In 2013–14, depression was the problem that was most commonly managed with a clinical treatment. For every 100 GP–patient encounters, one or more clinical treatments were provided in the management of depression on about two occasions.
- There was a marginal increase in the rate at which one or more clinical treatments were provided for diabetes, from 1.0 occasions per 100 encounters in 2004–05 to 1.2 per 100 encounters in 2013–14.
- For every 100 GP–patient encounters in 2004–05, anxiety was managed with one or more clinical treatments on 0.8 occasions. This significantly increased over time reaching 1.1 occasions per 100 encounters in 2013–14.

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 2004–05 (10.6 per 100 problems) to 2013–14 (11.9 per 100 problems) (Table 10.3a). The extrapolated effect of this change from 15.5 per 100 encounters in 2004–05 to 18.9 per 100 encounters in 2013–14 (Table 10.3b) is that nationally in 2013–14 there were an estimated 10 million more procedures undertaken at GP–patient encounters than a decade earlier.

- The most frequently recorded group of procedures throughout the decade were excision/removal tissue/biopsy/destruction/debridement/cauterisation. In 2013–14, these were provided at a rate of 2.0 per 100 problems managed.
- There was a significant increase in the rate of dressing/pressure/compression/tamponade, from 1.4 per 100 problems in 2004–05 to 1.8 per 100 problems in 2013–14 (Table 10.3a). The extrapolated effect of the increase from 2.0 to 2.9 per 100 encounters (Table 10.3b), equates to provision of 1.9 million more procedures grouped as dressing/pressure/compression/tamponade nationally in 2013–14 than in 2004–05.
- The provision of local injections/infiltration (excluding local injection performed for immunisations) increased marginally over the decade, from 1.4 to 1.6 per 100 problems.
- Physical medicine/rehabilitation significantly decreased from 1.4 per 100 problems managed in 2004–05 to 0.9 per 100 problems managed in 2013–14.

For every 100 GP–patient encounters in 2004–05, one or more procedures were used in the management of 14.3 problems. This significantly increased over time, reaching 17.7 problems per 100 encounters in 2013–14 (Table 10.4). Extrapolation of this result suggested about 9.6 million more problems were managed with a procedure in 2013–14 than a decade earlier.

- In 2013–14, solar keratosis/sunburn was the problem that was most commonly managed with a procedure. For every 100 GP–patient encounters, a procedure was performed in the management of solar keratosis/sunburn on about one occasion.
- Over the decade, there were significant increases in the rate at which one or more procedures were undertaken for the management of laceration/cut, general check-up, atrial fibrillation/flutter, vitamin/nutritional deficiency, skin symptom/complaint and depression.

Table 10.1a: The most frequent clinical treatments (rate per 100 problems), 2004–05 to 2013–14

Treatment	Rate per 100 problems (95% CI)										↑↓[(a)]
	2004–05 (*n* = 137,330)	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)	
Advice/education NEC*	4.8 (4.3–5.2)	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)	§
Counselling – problem*	2.9 (2.5–3.3)	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)	—
Counselling/advice – nutrition/weight*	3.7 (3.3–4.0)	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)	↓
Advice/education – treatment*	3.1 (2.8–3.5)	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)	↓
Counselling – psychological*	2.2 (2.0–2.4)	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)	—
Advice/education – medication*	2.3 (2.1–2.5)	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)	§
Other administrative procedure/document (excl. sickness certificate)*	0.9 (0.8–1.0)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	1.0 (0.9–1.1)	1.2 (1.1–1.3)	1.3 (1.2–1.5)	1.2 (1.1–1.4)	1.4 (1.3–1.5)	1.6 (1.5–1.7)	1.7 (1.6–1.9)	↑
Sickness certificate*	1.2 (1.0–1.3)	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)	—
Reassurance, support	1.1 (0.9–1.2)	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)	—
Counselling/advice – exercise*	1.3 (1.1–1.5)	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)	↓
Counselling/advice – smoking*	0.6 (0.5–0.6)	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)	↓
Counselling/advice – lifestyle*	0.3 (0.2–0.4)	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)	—
Counselling/advice – health/body*	0.2 (0.2–0.3)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.3–0.4)	↑

(continued)

Table 10.1a (continued): The most frequent clinical treatments (rate per 100 problems), 2004–05 to 2013–14

Treatment	Rate per 100 problems (95% CI)										
	2004–05 (*n* = 137,330)	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)	↑↓ (a)
Counselling/advice – prevention*	0.3 (0.2–0.4)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.3 (0.3–0.4)	0.2 (0.2–0.3)	0.4 (0.3–0.5)	0.3 (0.2–0.4)	0.4 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	—
Counselling/advice – alcohol*	0.3 (0.3–0.4)	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 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	↓
Observe/wait*	0.3 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	0.2 (0.1–0.3)	0.2 (0.1–0.2)	0.3 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	—
Consultation with primary care provider*	0.1 (0.1–0.1)	0.0‡ (0.0–0.1)	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 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	↑
Family planning*	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 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	↓
Total clinical treatments	**27.0 (25.6–28.3)**	**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)**	↓

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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/2123/11883>)

Note: CI – confidence interval; NEC – not elsewhere classified; excl – excluding.

Table 10.1b: The most frequent clinical treatments (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Treatment	(*n* = 94,386)	(*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)	
Advice/education NEC*	7.0 (6.3–7.7)	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)	§
Counselling – problem*	4.2 (3.6–4.7)	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)	—
Counselling/advice – nutrition/weight*	5.3 (4.8–5.8)	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)	↓
Advice/education – treatment*	4.6 (4.1–5.0)	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)	§
Counselling – psychological*	3.2 (2.9–3.5)	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)	—
Advice/education – medication*	3.4 (3.0–3.7)	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)	§
Other administrative procedure/document (excl. sickness certificate)*	1.3 (1.2–1.5)	1.0 (0.9–1.1)	1.2 (1.1–1.4)	1.5 (1.4–1.7)	1.8 (1.7–2.0)	2.1 (1.9–2.3)	1.9 (1.7–2.1)	2.2 (2.0–2.4)	2.5 (2.2–2.7)	2.7 (2.5–3.0)	↑
Sickness certificate*	1.7 (1.5–1.9)	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)	—
Reassurance, support*	1.6 (1.4–1.8)	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)	—
Counselling/advice – exercise*	1.9 (1.6–2.1)	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)	↓
Counselling/advice – smoking*	0.8 (0.7–0.9)	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)	—
Counselling/advice – lifestyle*	0.4 (0.3–0.5)	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)	↑
Counselling/advice – health/body*	0.4 (0.3–0.4)	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)	↑

(continued)

Table 10.1b (continued): The most frequent clinical treatments (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Treatment	**(*n* = 94,386)**	**(*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)**	
Counselling/advice – prevention*	0.4 (0.4–0.5)	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)	—
Counselling/advice – alcohol*	0.5 (0.4–0.5)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	↓
Observe/wait*	0.4 (0.3–0.5)	0.3 (0.2–0.4)	0.3 (0.2–0.4)	0.3 (0.2–0.4)	0.4 (0.3–0.6)	0.3 (0.2–0.4)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.2 (0.2–0.3)	0.4 (0.3–0.4)	—
Consultation with primary care provider*	0.1 (0.1–0.2)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	↑
Family planning*	0.4 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	↓
Counselling/advice – relaxation*	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	—
Counselling/advice – pregnancy*	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (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)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	—
Counselling/advice – other*	0.3 (0.2–0.4)	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 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	—
Total clinical treatments	**39.2 (37.1–41.4)**	**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)**	**§**

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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/2123/11883>)

Note: CI – confidence interval.; NEC – not elsewhere classified; excl – excluding.

Table 10.2: The most common problems managed with clinical treatments, 2004–05 to 2013–14

	Rate at which a selected problem was managed with one or more clinical treatments, per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Problem managed	(*n* = 94,386)	(*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)	
Depression*	1.8 (1.7–2.0)	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)	—
Upper respiratory tract infection	1.8 (1.5–2.0)	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)	—
Diabetes – all*	1.0 (0.9–1.1)	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)	↑
Anxiety*	0.8 (0.7–0.9)	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)	↑
Hypertension*	1.3 (1.2–1.5)	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)	↓
Lipid disorder	1.0 (0.9–1.1)	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)	↓
Gastroenteritis*	0.8 (0.7–0.9)	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)	—
Back complaint*	0.6 (0.5–0.7)	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)	—
Acute stress reaction	0.5 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (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)	↑
Administrative procedure – all*	0.2 (0.1–0.2)	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)	↑
General check-up*	0.4 (0.3–0.4)	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)	↑
Osteoarthritis*	0.4 (0.4–0.5)	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)	—
Obesity (BMI > 30)	0.5 (0.4–0.6)	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)	—
Test results*	0.5 (0.4–0.6)	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)	—

(continued)

Table 10.2 (continued): The most common problems managed with clinical treatments, 2004–05 to 2013–14

	Rate at which a selected problem was managed with one or more clinical treatments, per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Problem managed	(*n* = 94,386)	(*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)	
Tobacco abuse	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.5 (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)	↑
Viral disease, other/NOS	0.5 (0.4–0.6)	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)	—
Asthma	0.5 (0.4–0.6)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.3–0.5)	—
Total problems with clinical treatments	**34.4 (32.6–36.2)**	**26.7 (25.1–28.3)**	**26.8 (25.1–28.4)**	**31.2 (29.5–33.0)**	**30.9 (29.2–32.5)**	**31.5 (29.5–33.5)**	**31.8 (29.8–33.8)**	**32.9 (30.9–34.9)**	**32.6 (30.6–34.5)**	**33.8 (31.8–35.7)**	**§**

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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/2123/11883>).

Note: CI – confidence interval; BMI – body mass index; NOS – not otherwise specified. 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), 2004–05 to 2013–14

Treatment	Rate per 100 problems (95% CI)										↑↓[(a)]
	2004–05 (*n* = 137,330)	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)	
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	2.2 (1.9–2.4)	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)	—
Dressing/pressure/ compression/tamponade*	1.4 (1.2–1.5)	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)	↑
Local injection/ infiltration*[(b)]	1.4 (1.2–1.5)	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)	↑
Physical medicine/ rehabilitation – all*	1.4 (1.2–1.6)	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)	↓
Incision/drainage/ flushing/aspiration/ removal body fluid*	0.7 (0.7–0.8)	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)	—
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	0.6 (0.6–0.7)	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)	—
Pap smear*	0.7 (0.6–0.8)	0.7 (0.6–0.7)	0.6 (0.5–0.7)	0.7 (0.6–0.8)	0.8 (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)	—
INR test*	N/A	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)	↑
Other preventive procedures/ high-risk medication*	0.2 (0.2–0.3)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	↑
Other therapeutic procedures/minor surgery*	0.9 (0.7–1.2)	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)	↓
Electrical tracings*	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	0.3 (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)	↑
Check-up – PN/AHW*	N/A	N/A	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	0.4 (0.2–0.7)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	↑

(continued)

Table 10.3a (continued): The most frequent procedural treatments (rate per 100 problems), 2004–05 to 2013–14

Treatment	Rate per 100 problems (95% CI) 2004–05 (*n* = 137,330)	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)	↑↓[(a)]
Physical function test*	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.4)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	↑
Other diagnostic procedures*	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 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (0.1–0.4)	0.2 (0.2–0.3)	**↑**
Urine test*	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 (0.1–0.2)	0.2 (0.1–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	—
Pregnancy test*	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (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 (0.1–0.1)	—
Glucose test*	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (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)	—
Total procedural treatments	**10.6 (10.0–11.3)**	**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)**	**↑**

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: **↑/↓** indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

(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/2123/11883>).

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), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Treatment	(*n* = 94,386)	(*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)	
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	3.1 (2.8–3.5)	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)	—
Dressing/pressure/ compression/tamponade*	2.0 (1.8–2.1)	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)	↑
Local injection/ infiltration*[b]	2.0 (1.7–2.2)	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)	↑
Physical medicine/ rehabilitation – all*	2.0 (1.7–2.3)	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)	↓
Incision/drainage/flushing/ aspiration/removal body fluid*	1.0 (1.0–1.1)	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)	↑
Repair/fixation – suture/ cast/prosthetic device (apply/remove)*	0.9 (0.8–1.0)	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)	—
Pap smear*	1.0 (0.8–1.1)	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)	—
INR test*	N/A	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)	↑
Other preventive procedures/ high-risk medication*	0.3 (0.3–0.4)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.7 (0.6–0.8)	0.8 (0.7–0.9)	↑
Other therapeutic procedures/minor surgery*	1.4 (1.0–1.7)	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)	↓
Electrical tracings*	0.3 (0.3–0.4)	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)	↑
Check-up – PN/AHW*	N/A	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)	↑

(continued)

Table 10.3b (continued): The most frequent procedural treatments (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Treatment	(*n* = 94,386)	(*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)	
Physical function test*	0.4 (0.3–0.5)	0.4 (0.3–0.5)	0.6 (0.4–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (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)	↑
Other diagnostic procedures*	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.3)	0.2 (0.1–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.2–0.4)	0.4 (0.2–0.6)	0.3 (0.3–0.4)	**↑**
Urine test*	0.3 (0.2–0.4)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.4 (0.4–0.5)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.2–0.4)	—
Pregnancy test*	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.1 (0.1–0.1)	0.2 (0.1–0.2)	—
Glucose test*	0.2 (0.2–0.3)	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 (0.1–0.3)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	↓
Hormone implant*	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	—
Total procedural treatments	**15.5 (14.6–16.4)**	**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)**	**↑**

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

(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/2123/11883>).

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, 2004–05 to 2013–14

	Rate at which a selected problem was managed with one or more procedural treatments, per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Problem managed	(*n* = 94,386)	(*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)	
Solar keratosis/sunburn	0.9 (0.7–1.1)	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)	—
Female genital check-up/ Pap smear*	0.8 (0.7–0.9)	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)	—
Laceration/cut	0.5 (0.5–0.6)	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)	↑
Malignant neoplasm, skin	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)	0.6 (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)	—
Excessive ear wax	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 (0.6–0.7)	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)	—
Warts	0.5 (0.4–0.5)	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)	↑
General check-up*	0.2 (0.1–0.2)	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)	↑
Chronic ulcer skin (including varicose ulcer)	0.4 (0.3–0.4)	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)	↑
Atrial fibrillation/flutter	0.0[ǂ] (0.0–0.0)	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)	↑
Back complaint*	0.5 (0.4–0.6)	0.3 (0.2–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.2–0.5)	0.2 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.4)	0.4 (0.3–0.5)	—
Vitamin/nutritional deficiency	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.2–0.3)	0.3 (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)	↑
Skin symptom/complaint, other	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.4)	0.3 (0.3–0.4)	↑
Skin disease, other	0.3 (0.3–0.4)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	—

(continued)

Table 10.4 (continued): The most common problems managed with procedural treatments, 2004–05 to 2013–14

	Rate at which a selected problem was managed with one or more procedural treatments, per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Problem managed	(*n* = 94,386)	(*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)	
Asthma	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.4)	—
Diabetes – all*	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 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	↑
Sprain/strain*	0.5 (0.4–0.6)	0.4 (0.3–0.4)	0.3 (0.2–0.3)	0.4 (0.3–0.5)	0.3 (0.2–0.3)	0.3 (0.2–0.5)	0.3 (0.3–0.4)	0.3 (0.2–0.4)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	↓
Depression*	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (0.0–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	↑
Total problems with procedures	**14.3 (13.5–15.0)**	**13.6 (12.9–14.2)**	**14.3 (13.6–15.0)**	**15.6 (14.9–16.4)**	**15.6 (15.0–16.3)**	**16.4 (15.4–17.3)**	**15.9 (15.1–16.6)**	**15.8 (15.1–16.5)**	**16.3 (15.5–17.0)**	**17.7 (16.9–18.5)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/11883>)

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. 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 GP BEACH 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.[28] In 2005–06, the BEACH recording form was amended to capture this information.

GPs were allowed to record up to three Medicare item numbers where appropriate, rather than be limited to one item number as had been the case prior to 2005–06.

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 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.[63]

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 9.0% in 2009–10. The rate has remained steady since this time, with 8.0% of encounter in 2013–14 involving a PN/AHW (Table 10.5).

Following a similar pattern of change, the proportion of problems managed with PN/AHW at GP–patient encounters also increased significantly from 2.8% in 2005–06 to 6.1% in 2009–10, and then remained steady at 5.0% in 2011–12 and 2012–13.

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 proportion 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 27.4% of encounters involving a PN/AHW. In 2013–14, PN/AHW involvement was claimable from Medicare at only 5.0% of encounters with which they were associated (Table 10.5).

Treatments provided by practice nurses and Aboriginal health workers

The rate at which procedures (including 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, and remained steady at 7.8 per 100 in 2013–14.

While their provision of clinical treatments (such as advice and health education) 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 2013–14 (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 112.5 per 100 in 2013–14 (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 decreased in 2011–12 to 35.5 per 100 PN/AHW encounters and stayed steady, sitting at 34.0 per 100 in 2013–14.

In 2013–14, check-ups were conducted by PNs/AHWs at a rate of 8.3 per 100 GP–patient encounters in which they were involved, double that of 2006–07. International normalised ratio (INR) blood testing frequency more than tripled, from 1.8 per 100 practice nurse encounters in 2006–07 to 7.5 per 100 in 2013–14, 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/AHW associated with GP–patient encounters.

Clinical treatments: PN/AHW carried out administrative procedures (excluding sickness certificates) 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. Increases also occurred in their provision of advice/education about medication and in general advice about treatment of the problem (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. There were significant increases in the rate at which they were involved in the management of check-ups, atrial fibrillation/flutter, diabetes, vitamin/nutritional deficiency and hypertension. Some of these increases may well have been stimulated by the introduction of MBS item 10997 for services provided to a person with a chronic disease in 2007–08. Their involvement with problems labelled as 'administrative procedure' increased, particularly in 2011–12 and 2012–13 (Table 10.8).

Table 10.5: Summary of PN and AHW involvement at encounter, and claims made, 2005–06 to 2013–14

Variable	Number									↑↓ (a)
	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	
Total encounters	101,993	91,805	95,898	96,688	101,349	95,839	99,030	98,564	95,879	. .
Encounters involving PN or AHW	4,295	4,769	5,791	6,183	9,154	7,625	7,293	7,318	7,690	. .
Encounters at which PN activity described	4,013	4,710	5,712	6,052	8,999	7,432	7,210	7,234	7,615	. .
Encounters with PN item number but activity not described	282	59	79	131	155	195	82	84	75	. .
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	. .
Total problems managed	149,088	136,333	145,078	149,462	155,373	146,141	152,286	152,517	151,675	. .
Problems managed with PN involvement	4,111	4,922	5,909	6,281	9,542	7,826	7,554	7,607	8,041	. .
	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)	↑
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)	↑
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)	↓
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)	↓

(a) The direction and type of change from 2005–06 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2005–06.

Note: PN/AHW – practice nurse or Aboriginal health worker; CI – confidence interval. 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 total practice nurse/Aboriginal health worker activity those encounters at which an item number was recorded but no practice nurse activity was described.

Table 10.6: Summary of treatments provided by PNs or AHWs, 2005–06 to 2013–14

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)	↑/↓[(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)	↑
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)	↑
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)**	↑

(a) The direction and type of change from 2005–06 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 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 2013–14

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)	↑/↓[(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)	↓
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)	§
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)	§
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)	↑
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)	↑

(continued)

Table 10.7 (continued): Most frequent treatments done by PNs or AHWs, 2005–06 to 2013–14

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)	
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)	↑
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)	—
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)	—
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)	—
Excision/removal tissue/ biopsy/destruction/ debridement/cauterisation*	7.0 (5.2–8.7)	5.5 (4.0–7.0)	4.7 (3.7–5.8)	4.3 (3.3–5.2)	2.8 (2.1–3.5)	3.0 (2.3–3.7)	3.4 (2.7–4.2)	3.5 (2.7–4.2)	3.6 (2.8–4.3)	↓
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)	—
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)	—
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)	↑
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)	—
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)	—
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)	—
Assist at operation*	0	0	0.3 (0.1–0.5)	0.5 (0.2–0.7)	0.2 (0.1–0.3)	0.1 (0.0–0.1)	0.4 (0.2–0.7)	0.9 (0.4–1.3)	0.5 (0.2–0.8)	—
Pregnancy test*	0.3 (0.1–0.6)	0.3 (0.1–0.5)	0.5 (0.3–0.8)	0.5 (0.3–0.7)	0.2 (0.1–0.4)	0.4 (0.2–0.7)	0.7 (0.4–0.9)	0.4 (0.2–0.6)	0.4 (0.2–0.6)	—

(continued)

Table 10.7 (continued): Most frequent treatments done by PNs or AHWs, 2005–06 to 2013–14

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)	
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)	↑
Other administrative procedure/document (excl. sickness certificate)*	0.7 (0.4–1.0)	1.1 (0.7–1.6)	2.0 (1.4–2.6)	2.3 (1.6–3.0)	2.3 (1.6–3.0)	2.2 (1.6–2.8)	3.6 (2.8–4.4)	5.8 (4.6–7.0)	4.6 (3.5–5.8)	↑
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)	↑
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)	—
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)	↑
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)	—
Advice – 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)	↑
Consultation with primary care provider*	0.0[Ŧ] (.–.)	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)	↑
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)**	↑

(a) The direction and type of change from 2005–06 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2005–06; — indicates there was no significant change in 2013–14 compared with 2005–06; and § indicates a noteworthy change over the period.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/11883>).

Note: PN/AHW – practice nurse or Aboriginal health worker; includes only those activities done by practice nurses or Aboriginal health workers 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 most common 20 problems managed with involvement of PN or AHW, 2005–06 to 2013–14

Problem managed	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* = 7,234)	
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)	↓
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)	↑
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)	—
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)	↑
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)	↑
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)	↓
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)	—
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)	—
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)	↑
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)	↑
Administrative procedure – all*	0.0	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)	↑
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)	↑
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)	—

(continued)

Table 10.8 (continued): The most common 20 problems managed with involvement of PN or AHW, 2005–06 to 2013–14

Problem managed	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* = 7,234)	
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)	—
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)	↓
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)	↑
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)	—
Other preventive procedures/high-risk medication*	0.2 (0.0–0.3)	0.4 (0.1–0.6)	0.8 (0.4–1.2)	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)	—
Burns/scalds	0.9 (0.5–1.3)	1.2 (0.8–1.7)	1.1 (0.8–1.4)	0.9 (0.6–1.2)	0.6 (0.4–0.8)	0.9 (0.6–1.2)	0.8 (0.5–1.1)	0.8 (0.5–1.1)	1.0 (0.7–1.3)	—
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)	—
Chest pain NOS	0.8 (0.4–1.1)	0.5 (0.3–0.7)	1.0 (0.7–1.2)	0.6 (0.4–0.8)	0.7 (0.5–0.9)	0.6 (0.4–0.9)	0.6 (0.4–0.8)	0.5 (0.3–0.7)	0.9 (0.6–1.3)	—
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)**	↑

(a) The direction and type of change from 2005–06 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2005–06; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2005–06; — indicates there was no significant change in 2013–14 compared with 2005–06; and § indicates a noteworthy change over the period.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, Table A4.1, <hdl.handle.net/2123/11883>).

Note: PN/AHW – practice nurse or Aboriginal health worker; includes only those problems managed by practice nurses or Aboriginal health workers 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 2004–05 to 2013–14, 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 2004–05 to 2013–14, is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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 2004–05 and 2013–14. 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 2004–05 (98.2 million encounters) and 2013–14 (133.4 million encounters).[1,9] As a result, a decreased rate of a particular 'measured event' per 100 encounters may occasionally yield a national increase in the estimated number of events.

More specific analyses of referrals recorded by participating GPs in the 2013–14 BEACH year can be found in the companion report, *General practice activity in Australia 2013–14*.[3]

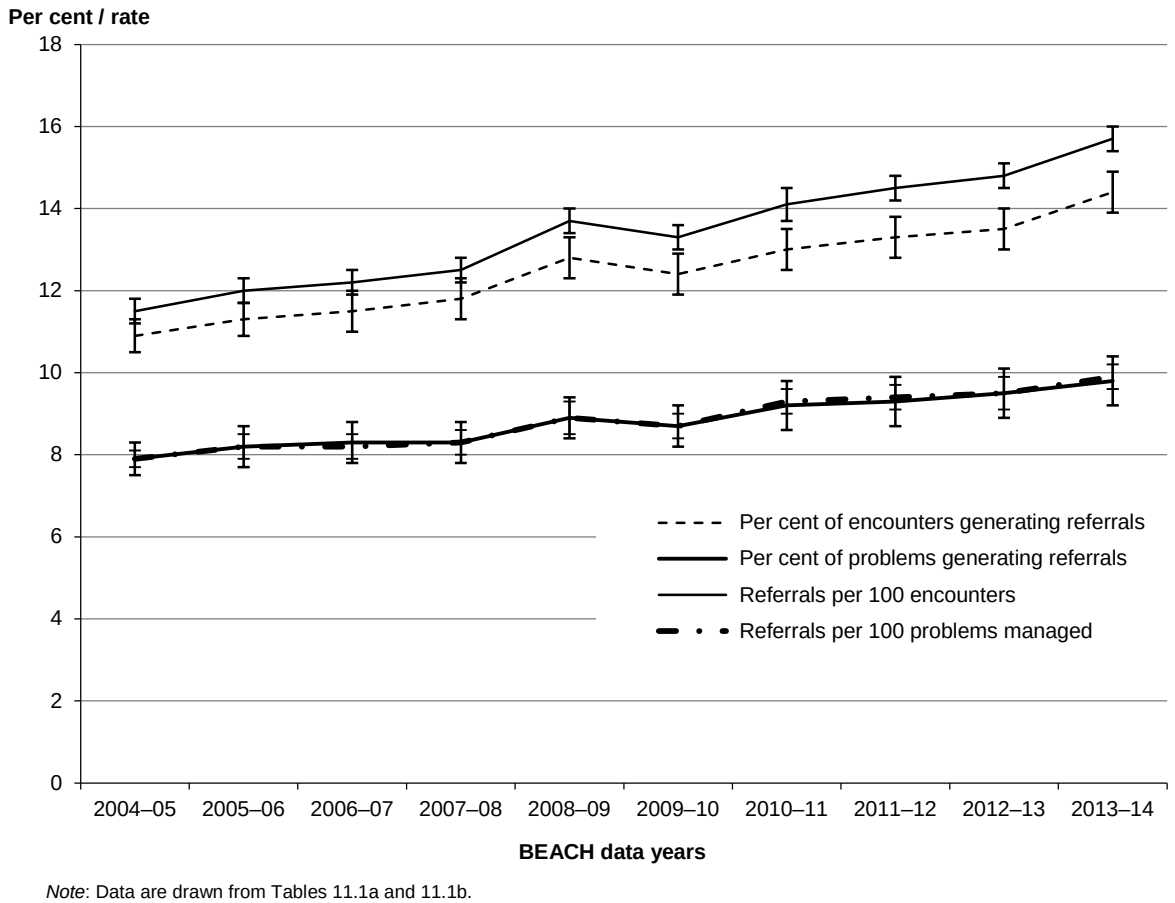
11.1 Results

Figure 11.1 illustrates the proportion of encounters and problems managed where referrals were made, and referral rates per 100 encounters and per 100 problems, over the decade 2004–05 to 2013–14. As described in detail below, there were significant increases in likelihoods 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 7.9% of problems being referred in 2004–05 and 9.8% in 2013–14. There was a significant increase in the overall rate of referrals, from 7.9 per 100 problems managed in 2004–05 to 9.9 per 100 in 2013–14 (Table 11.1a), largely due to increased referral rates to medical specialists and to allied health professionals. The rate of referral to medical specialists per 100 problems managed increased from 5.3 in 2004–05 to 6.0 per 100 in 2013–14. There were marginally significant increases in the rate of referrals per 100 problems to orthopaedic surgeons, cardiologists and gastroenterologists; and marginal decreases in referrals to surgeons and ophthalmologists.

The rate of referral to allied health services per 100 problems managed increased from 1.9 in 2004–05 to 3.1 per 100 in 2013–14. There were significant increases in the rates of referral to psychologists and podiatrists/chiropodists per 100 problems managed, and marginal increases in referral rates to physiotherapists and dietitians/nutritionists. There was a significant increase in the rate of referral to emergency departments and a marginal decrease in the rate of referral/admission to hospitals over the decade (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 (10.9% involving a referral in 2004–05 and 14.4% in 2013–14). Overall, referrals increased significantly, from 11.5 per 100 encounters in 2004–05 to 15.7 per 100 in 2013–14. Extrapolation of this change suggests there were about 9.7 million more GP referrals nationally in 2013–14 than in 2004–05. These included about 5.1 million more referrals to medical specialists and about 3.9 million more to allied health services. Of these 3.9 million additional allied health referrals, 1.3 million were to psychologists, probably largely as a result of the government's introduction of the Better Outcomes[64] and later the Better Access[65] mental health programs. There were also about 750,000 more referrals to physiotherapists, which may also be 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.[62]



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, 2004–05 to 2013–14 (95% confidence intervals)

Table 11.1a: The most frequent referrals (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Referral	(*n* = 137,330)	(*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)	
At least one referral	7.9 (7.7–8.2)	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)	↑
Medical specialist	5.3 (5.1–5.5)	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)	↑
Orthopaedic surgeon	0.5 (0.4–0.5)	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)	↑
Surgeon	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 (0.5–0.6)	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)	↓
Cardiologist	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 (0.3–0.4)	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)	↑
Dermatologist	0.5 (0.4–0.5)	0.5 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (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)	—
Ophthalmologist	0.6 (0.5–0.6)	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)	↓
Gastroenterologist	0.3 (0.2–0.3)	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)	↑
Ear, nose and throat	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (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)	—
Gynaecologist	0.3 (0.3–0.4)	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)	—
Urologist	0.2 (0.2–0.2)	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)	—
Neurologist	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 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	—
Paediatrician	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	—
Psychiatrist	0.2 (0.2–0.2)	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)	—

(continued)

Table 11.1a (continued): The most frequent referrals (rate per 100 problems), 2004–05 to 2013–14

Referral	Rate per 100 problems (95% CI) 2004–05 (*n* = 137,330)	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)	↑↓[a]
Plastic surgeon	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)	0.2 (0.1–0.2)	—
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 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	—
Endocrinologist	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 (0.1–0.2)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	—
Allied health services	1.9 (1.7–2.0)	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 (3.0–3.3)	↑
Physiotherapy	0.7 (0.6–0.8)	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)	↑
Psychologist	0.2 (0.1–0.2)	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)	↑
Podiatrist/chiropodist	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	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)	↑
Dietitian/nutritionist	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 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	↑
Dentist	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)	0.2 (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)	—
Hospital	0.3 (0.3–0.4)	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)	↓
Emergency department	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (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)	↑
Other referrals	0.3 (0.3–0.4)	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)	—
Total referrals	**7.9 (7.6–8.2)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

Note: CI – confidence interval.

Table 11.1b: The most frequent referrals (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Referral	(*n* = 94,386)	(*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)	
At least one referral	10.9 (10.5–11.3)	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)	↑
Medical specialist	7.7 (7.4–8.1)	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)	↑
Orthopaedic surgeon	0.7 (0.6–0.8)	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)	↑
Surgeon	0.8 (0.7–0.9)	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)	—
Cardiologist	0.5 (0.5–0.6)	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)	↑
Dermatologist	0.7 (0.6–0.8)	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)	—
Ophthalmologist	0.8 (0.7–0.9)	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)	—
Gastroenterologist	0.4 (0.3–0.4)	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)	↑
Ear, nose and throat	0.5 (0.5–0.6)	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)	↓
Gynaecologist	0.5 (0.5–0.6)	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)	↓
Urologist	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.4)	↑
Neurologist	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)	0.3 (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)	—
Paediatrician	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.2)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	—

(continued)

Table 11.1b (continued): The most frequent referrals (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Referral	(*n* = 94,386)	(*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)	
Psychiatrist	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	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)	—
Plastic surgeon	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	↑
Allied health services	2.7 (2.5–2.9)	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 (4.7–5.2)	↑
Physiotherapy	1.0 (0.9–1.1)	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)	↑
Psychologist	0.2 (0.2–0.3)	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)	↑
Podiatrist/chiropodist	0.2 (0.2–0.3)	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)	↑
Dietitian/nutritionist	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)	0.3 (0.2–0.3)	0.4 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.5)	↑
Dentist	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)	0.3 (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)	—
Hospital	0.5 (0.4–0.5)	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)	—
Emergency department	0.2 (0.1–0.2)	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)	↑
Other referrals	0.4 (0.4–0.5)	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)	—
Total referrals	**11.5 (11.1–12.0)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

Note: CI – confidence interval.

12 Investigations

Investigations ordered by GPs for each of the 10 years 2004–05 to 2013–14, are reported in two ways: as rates per 100 problems managed (for example, Table 12.1a) and as rates per 100 encounters (for example, Table 12.1b). In the text describing changes over time, the rates per 100 problems are reported as the primary measure, because there was a significant increase over the decade in the number of problems managed per encounter.

The direction and type of change from 2004–05 to 2013–14 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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 2004–05 and 2013–14. Examples of extrapolated change are given. The method used to extrapolate to national change estimates 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 the linkage of a test order 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 2013–14 can be found in Chapter 12 of *General practice activity in Australia 2013–14*.[3]

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

- a comprehensive report on pathology ordering by GPs in Australia in 1998, written by the then General Practice Statistics and Classification Unit using BEACH data, published on the internet by the then Department of Health and Aged Care[66]
- a report on imaging orders by GPs in Australia in 1999–2000 using BEACH data, published as an AIHW–University of Sydney book in the GP series in 2001[67]
- a report on changes in pathology ordering by GPs from 1998 to 2001 using BEACH data, published as an AIHW–University of Sydney book in the GP series in 2003[68]
- a review of GP pathology ordering in the National Health Priority Areas and other selected problems between 2000 and 2008, reported in the AIHW–University of Sydney publication, *General practice in Australia, health priorities and policies 1998 to 2008*[69]
- 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.[70]

- a PhD thesis, *Evaluation of pathology ordering by general practitioners in Australia,* completed in 2013.[71]
- a 2014 report, *Evaluation of imaging ordering by general practitioners in Australia 2002–03 to 2011–12,* describes changes in GPs' imaging ordering over time and evaluates the alignment between guidelines and GP test ordering for selected problems.[72] This was funded by a grant from the Diagnostic Imaging Quality Program, through the Australian Government Department of Health.

12.1 Number of problems or encounters where pathology or imaging was ordered

Table 12.1a shows there was a significant increase in the proportion of problems for which pathology and/or imaging was ordered.

- The likelihood of ordering at least one pathology test increased from 12.2% of all problems managed in 2004–05 to 13.9% in 2013–14.
- The proportion of problems generating imaging orders increased from 5.2% in 2004–05 to 6.1% in 2013–14.

Between 2004–05 and 2013–14, the number of problems managed per 100 encounters rose from 145.5 to 158.2 (Table 5.1). Both the rise in the proportion of problems generating test orders and the rise in the number of problems managed per encounter contributed to an overall increase in the proportion of encounters involving a pathology or imaging test (Table 12.1b).

- The ordering of at least one pathology test per encounter increased from 15.7% of encounters in 2004–05 to 19.1% in 2013–14, equating to approximately 10 million more encounters at which pathology was ordered nationally in 2013–14 than 10 years earlier.
- The proportion of encounters generating imaging orders increased from 7.3% in 2004–05 to 9.3% in 2013–14, resulting in an estimated 5.2 million more encounters nationally at which imaging was ordered in 2013–14 than in 2004–05.

12.2 Pathology test orders by MBS groups

Tables 12.2a and 12.2b show the changes in the total number of pathology test orders, and in the distribution of these by MBS pathology groups.[73]

The number of pathology tests ordered increased from 25.2 tests/batteries of tests per 100 problems managed in 2004–05 to 31.0 per 100 problems in 2013–14 (Table 12.2a).

The largest increase (of 29%) was in orders for chemical pathology, which increased from 14.0 per 100 problems in 2004–05 to 18.1 per 100 in 2013–14. Haematology increased significantly over the decade at a slower rate, from 4.8 per 100 problems in 2004–05 to 5.4 in 2013–14. Most of this change occurred between 2004–05 and 2006–07, the rate increased from 4.8 to 5.3 per 100 problems, and then stayed relatively stable over the latter part of the decade to 2013–14. There were also significant increases in order rates for microbiology and immunology tests, and marginal increases in the rates of tissue pathology and 'simple' tests. Order rates for the other individual test groups did not change.

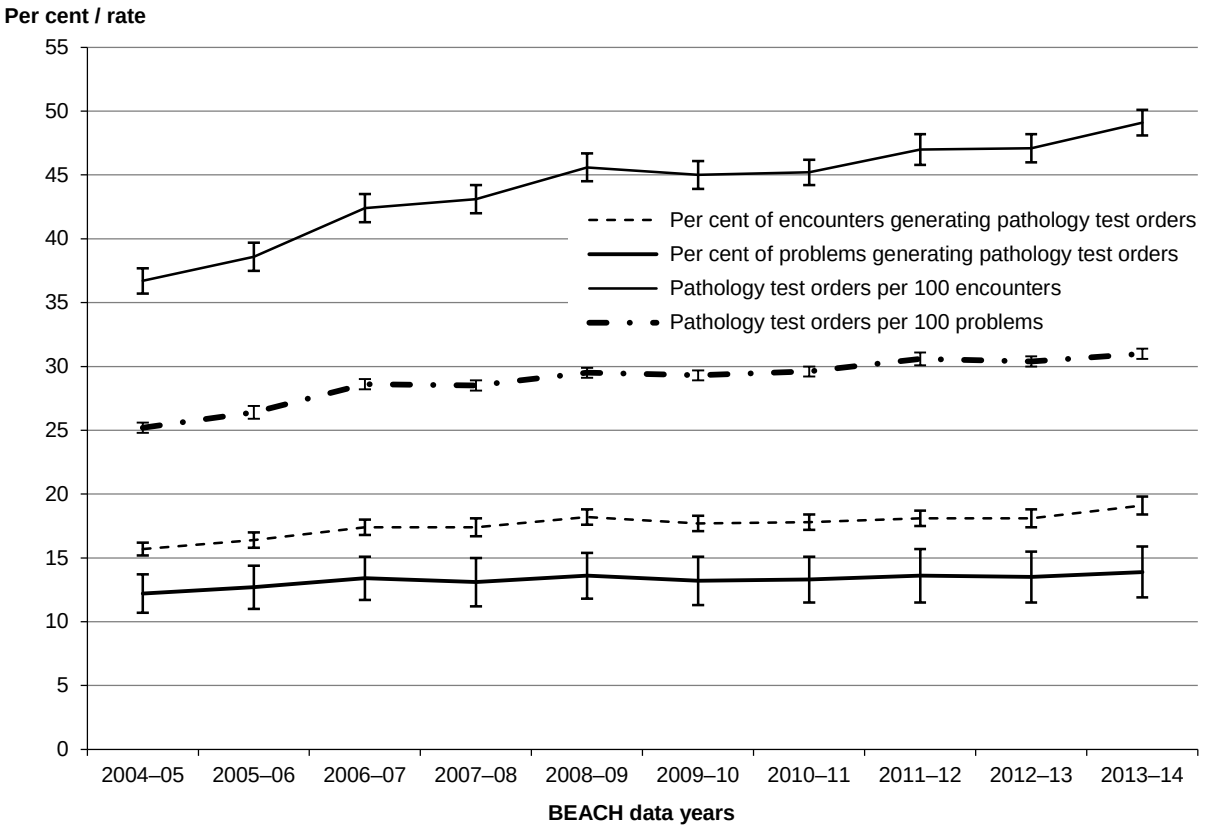
The number of pathology tests ordered per 100 encounters increased from 36.7 tests (or batteries of tests) per 100 encounters in 2004–05 to 49.1 in 2013–14 (Table 12.2b), which, when

combined with the increase in attendance rate, extrapolates to approximately 29.5 million more tests/batteries of tests ordered in 2013–14 than in 2004–05 nationally.

The largest increase was in orders for chemistry tests, which increased by 40% from 20.4 per 100 encounters in 2004–05 to 28.6 in 2013–14. This extrapolates to an estimated 18.1 million more chemistry test orders nationally in 2013–14 than 10 years earlier.

Haematology tests increased at a slower rate, from 7.0 tests per 100 encounters in 2004–05 to 8.5 in 2013–14, a national increase of approximately 4.5 million tests. Microbiology test orders increased from 5.2 per 100 encounters in 2004–05 to 6.6 in 2013–14, extrapolating to an increase of about 3.7 million additional test orders nationally in 2013–14. There were far smaller increases in order rates for immunology tests, simple tests, a marginal increase in tissue pathology, and no increases in the other test groups.

Figure 12.1 shows the statistically significant increases in the likelihood of ordering pathology and the total number of pathology tests ordered per 100 problems, or per 100 encounters, over the 10 years to 2013–14 (Figure 12.1). The growth in the number of tests/batteries ordered was larger than the growth in likelihood of ordering because, once a decision to order was made, the number of tests ordered significantly increased from an average 2.07 tests/batteries per tested problem in 2004–05[2] to 2.32 per tested problem in 2013–14.[3]



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, 2004–05 to 2013–14 (95% confidence intervals)

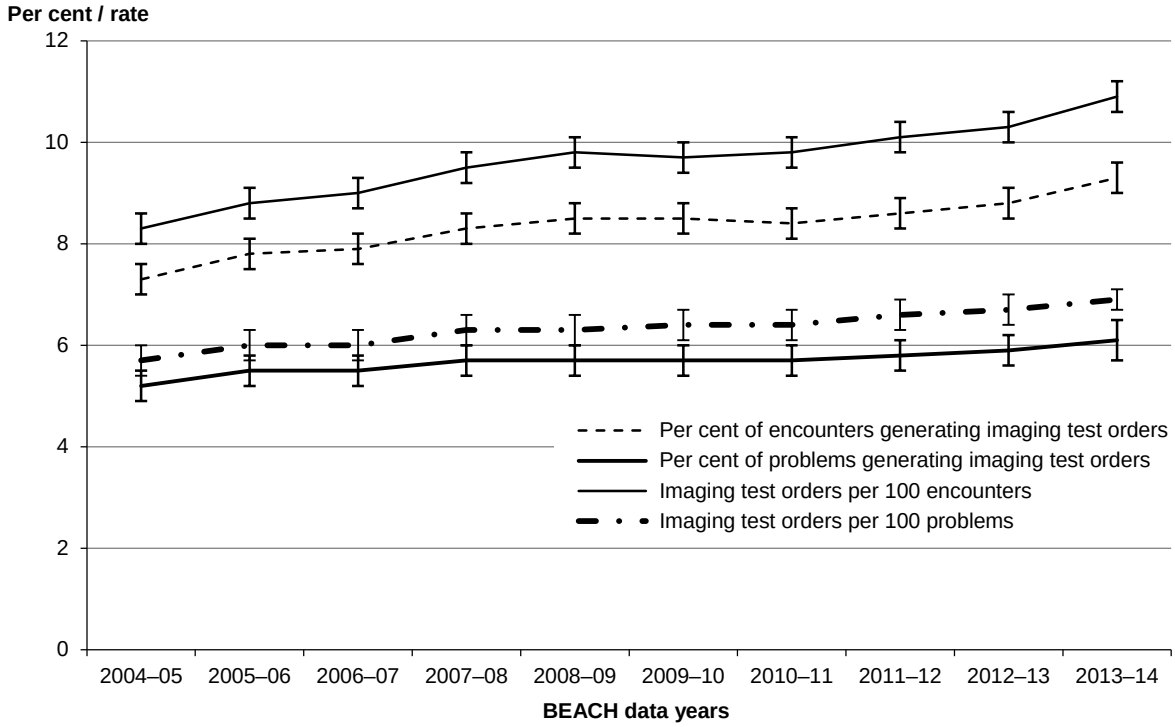
12.3 Imaging test orders by MBS group

Tables 12.3a and 12.3b show the changes in imaging orders by MBS imaging group from 2004–05 to 2013–14.

Total imaging test orders increased significantly from 5.7 per 100 problems managed in 2004–05 to 6.9 per 100 in 2013–14 (Table 12.3a). There were significant increases in the order rate of ultrasound imaging (from 1.8 tests per 100 problems in 2004–05 to 2.8 per 100 in 2013–14) and magnetic resonance imaging (from less than 0.05 per 100 problems in 2004–05 to 0.3 in 2013–14). There was a marginal increase in the order rate of computerised tomography, from 0.7 to 0.8 per 100 problems. Order rates of diagnostic radiology and nuclear medicine order did not change over the decade.

Total imaging test orders per 100 encounters also increased significantly from 8.3 in 2004–05 to 10.9 in 2013–14 (Table 12.3b), suggesting there were 6.4 million more imaging orders nationally in 2013–14 than 10 years earlier. Ultrasound imaging orders increased from 2.7 tests per 100 encounters in 2004–05 to 4.5 per 100 in 2013–14, a national increase of about 3.4 million ultrasound orders over the study period. Computerised tomography increased from 1.0 per 100 encounters in 2004–05 to 1.3 in 2013–14, equating to an additional 750,000 orders for computerised tomography in 2013–14 than a decade earlier. Magnetic resonance imaging orders increased from less than 0.05 per 100 encounters in 2004–05 to 0.4 in 2013–14. Order rates of diagnostic radiology and nuclear medicine did not change over this period.

Figure 12.2 shows the statistically significant increases in the likelihood of ordering imaging and the total number of imaging tests ordered per 100 problems and per 100 encounters over the 10 years to 2013–14 (Figure 12.2).



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, 2004–05 to 2013–14 (95% confidence intervals)

Table 12.1a: Problems for which pathology or imaging was ordered (per cent of problems), 2004–05 to 2013–14

	Per cent of problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓ (a)
Test ordered	(*n* = 137,330)	(*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)	
At least one pathology test ordered	12.2 (11.8–12.6)	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)	↑
At least one imaging test ordered	5.2 (5.0–5.4)	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)	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05.

Note: CI – confidence interval.

Table 12.1b: Encounters at which pathology or imaging was ordered (per cent of encounters), 2004–05 to 2013–14

	Per cent of encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓ (a)
Test ordered	(*n* = 94,386)	(*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)	
At least one pathology test ordered	15.7 (15.2–16.3)	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)	↑
At least one imaging test ordered	7.3 (7.0–7.6)	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)	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05.

Note: CI – confidence interval.

Table 12.2a: Pathology orders by MBS pathology groups (rate per 100 problems), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Pathology test ordered	**(*n* = 137,330)**	**(*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)**	
Chemistry*	14.0 (13.4–14.6)	14.9 (14.1–15.6)	16.5 (15.8–17.2)	16.5 (15.7–17.2)	17.4 (16.7–18.1)	16.9 (16.1–17.6)	17.2 (16.5–17.9)	18.0 (17.1–18.8)	17.9 (17.2–18.6)	18.1 (17.4–18.8)	↑
Haematology*	4.8 (4.5–5.0)	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)	↑
Microbiology*	3.6 (3.3–3.8)	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)	↑
Cytopathology*	1.1 (1.0–1.3)	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)	—
Immunology*	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.6 (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)	↑
Tissue pathology*	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.4 (0.3–0.5)	0.5 (0.4–0.6)	0.5 (0.4–0.6)	0.7 (0.6–0.7)	↑
Other NEC*	0.6 (0.5–0.7)	0.5 (0.4–0.6)	0.5 (0.4–0.7)	0.7 (0.5–0.8)	0.5 (0.4–0.6)	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)	—
Simple tests*	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	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)	↑
Infertility/pregnancy*	0.2 (0.1–0.2)	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)	—
Total pathology tests	**25.2 (24.3–26.2)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; and — indicates there was no significant change in 2013–14 compared with 2004–05.

* Includes multiple ICPC-2 and ICPC-2 PLUS codes (see Appendix 4, Table A4.8, <hdl.handle.net/2123/11883>).

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), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Pathology test ordered	**(*n* = 94,386)**	**(*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)**	
Chemistry*	20.4 (19.4–21.4)	21.7 (20.5–22.9)	24.5 (23.3–25.7)	24.9 (23.6–26.2)	27.0 (25.7–28.2)	25.9 (24.6–27.2)	26.2 (25.0–27.4)	27.6 (26.1–29.1)	27.7 (26.4–29.0)	28.6 (27.3–30.0)	↑
Haematology*	7.0 (6.6–7.3)	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)	↑
Microbiology*	5.2 (4.8–5.6)	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)	↑
Cytopathology*	1.6 (1.5–1.8)	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)	—
Immunology*	0.6 (0.5–0.6)	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)	↑
Tissue pathology*	0.8 (0.6–0.9)	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)	↑
Other NEC*	0.8 (0.7–1.0)	0.7 (0.6–0.8)	0.8 (0.7–1.0)	1.0 (0.8–1.2)	0.8 (0.7–1.0)	0.7 (0.6–0.9)	0.9 (0.7–1.0)	0.9 (0.7–1.1)	0.9 (0.7–1.0)	1.0 (0.8–1.2)	—
Simple tests*	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 (0.2–0.3)	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)	↑
Infertility/pregnancy*	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 (0.2–0.3)	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)	—
Total pathology tests	**36.7 (35.2–38.2)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

* Includes multiple ICPC-2 and ICPC-2 PLUS codes (see Appendix 4, Table A4.8, <hdl.handle.net/2123/11883>).

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), 2004–05 to 2013–14

	Rate per 100 problems (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Imaging test ordered	(*n* = 137,330)	(*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)	
Diagnostic radiology*	3.1 (2.9–3.2)	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)	—
Ultrasound*	1.8 (1.7–1.9)	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)	↑
Computerised tomography*	0.7 (0.6–0.8)	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)	↑
Magnetic resonance imaging*	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (0.0–0.0)	0.0[Ŧ] (0.0–0.1)	0.0[Ŧ] (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)	↑
Nuclear medicine*	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	—
Total imaging tests	**5.7 (5.5–5.9)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

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/2123/11883>).

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

Table 12.3b: Imaging orders by MBS imaging groups (rate per 100 encounters), 2004–05 to 2013–14

	Rate per 100 encounters (95% CI)										
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Imaging test ordered	(*n* = 94,386)	(*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)	
Diagnostic radiology*	4.5 (4.3–4.7)	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)	—
Ultrasound*	2.7 (2.5–2.8)	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)	↑
Computerised tomography*	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 (1.1–1.4)	1.1 (1.0–1.2)	1.2 (1.1–1.3)	1.3 (1.2–1.4)	1.3 (1.2–1.4)	↑
Magnetic resonance imaging*	0.0[Ŧ] (0.0–0.0)	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)	↑
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 (0.1–0.1)	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)	—
Total imaging tests	**8.3 (8.0–8.6)**	**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)**	↑

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05;— indicates there was no significant change in 2013–14 compared with 2004–05.

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/2123/11883>).

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 2013–14, 85.2% of Australians visited a GP at least once (personal communication, DoH, August 2014). 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 2013–14*.[3]

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 2004–05 to 2013–14, and risk factor prevalence after adjustment for attendance patterns by age–sex for each of the 7 most recent years. Unweighted data are presented for comparability over time as this was reported in all annual reports. Medicare claims data (from DoH), was used to estimate more precise estimates of prevalence, after adjusting to the attending population, and was only provided from 2007–08 onwards.

The direction and type of change from 2004–05 to 2013–14 is indicated for each result in the far right column of the tables: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05; 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[74] 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).[75,76]

Adults

Overall prevalence of overweight/obesity in adults sampled at general practice encounters increased significantly from 57.0% in 2004–05 (95% CI: 56.1–57.9) to 62.7% in 2013–14 (95% CI: 61.8–63.5) (results not tabulated).

- The prevalence of obesity in adults rose from 22.4% in 2004–05 to 27.8% in 2013–14 (Table 13.1a), and 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 has been another increase by over one percentage point (to 27.8%).
- In contrast, prevalence of overweight has remained steady at about 35% of surveyed adult patients.
- The proportion of adults who were in the normal weight range decreased significantly from 40.3% in 2004–05 to 35.1% in 2013–14 (Table 13.1a). This significant decrease was apparent among both male and female patients (Tables 13.2a and 13.3a). The decrease in normal weight was evident between 2004–05 and 2010–11 (from 40.3% to 35.8%), and was then static at about 36% for the 3 years 2010–11 to 2012–13. In 2013–14, there has been another decrease by over one percentage point (to 35.1%) – corresponding with the increase in obesity.

In summary, for both male and female patients between 2004–05 and 2013–14, there was a significant increase in the rates of obesity 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 seems to have increased in 2013–14. If this trend continues, it will have huge implications for public health.

The estimates for the adult GP–patient attending population (after adjusting for age–sex attendance patterns) showed an increase in prevalence of obesity between 2007–08 and 2013–14 from 23.4% to 26.9%, and a corresponding decrease in the prevalence of normal weight from 38.9% to 36.3% (Table 13.1b). This pattern in adults was noted for both male and female patients (Tables 13.2b and 13.3b).

Children

The prevalence of overweight and obesity among sampled children aged 2–17 years did not change significantly between 2004–05 and 2013–14 (around 10% and 18% respectively) (Table 13.1a), this stable relationship was noted among both male and female children (Table 13.2a and Table 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 18.0% and 3.7% respectively in 2004–05 to 13.5% and 2.3% in 2013–14 (Table 13.1a). These decreases were apparent among both male and female patients (Tables 13.2a and 13.3a).

Rates of daily smoking were significantly higher among male patients than female patients in all years. In 2013–14, prevalence was 16.7% of males and 11.6% of females.

The estimates for the adult GP–patient attending population (after adjusting for age–sex attendance patterns) showed a decrease in prevalence of daily smoking between 2007–08 and 2013–14 from 19.3% to 16.9%, and a corresponding increase in prevalence of never smokers from 51.5% to 54.5% (Table 13.1b). This pattern was noted for male patients only (Tables 13.2b and 13.3b).

13.3 Alcohol consumption

To measure alcohol consumption, BEACH uses AUDIT-C[77] which is the first three items from the WHO Alcohol Use Disorders Identification Test (AUDIT),[78] with scoring for an Australian setting.[79] The AUDIT-C has demonstrated validity and internal consistency and performs as well as the full AUDIT tool.[80] 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).[77] 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.[79]

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 2004–05 to 23% in 2013–14. There was a corresponding increase in non-drinkers from about 29% in 2004–05 to 33% in 2013–14 (Table 13.1a). The significant decrease in at-risk levels of alcohol consumption and increase in non-drinkers 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 attendance patterns) showed a decrease in prevalence of at-risk levels of alcohol consumption between 2007–08 and 2013–14 from 29.3% to 26.2%, and a corresponding increase in prevalence of non-drinkers from 26.5% to 29.8% (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 adults with one risk factor from 48.8% in 2004–05, to 53.0% in 2013–14 (Table 13.1a). The increase was apparent among both male and female adult patients (Tables 13.2a and 13.3a). There was a significant decrease in the proportion of patients with two or three risk factors from 20.3% to 18.4% and 4.0% to 3.2% respectively—corresponding with the increase in one risk factor.

The estimates for the adult GP–patient attending population (after adjusting for age–sex attendance patterns) showed an increase in prevalence of one risk factor between 2007–08 and 2013–14 from 48.2% to 50.6%, and a corresponding decrease in prevalence of all three risk factors from 5.1% to 4.1% (Table 13.1b). This pattern in adults was noted for male patients only (Tables 13.2b and 13.3b).

Table 13.1a: Patient risk factors, 2004–05 to 2013–14

Risk factor	Per cent (95% CI) 2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[a]
Adults (aged 18 years and over)											
Body mass index class[b] (*n*)	**30,476**	**33,101**	**32,334**	**31,062**	**33,526**	**31,932**	**31,315**	**32,372**	**31,452**	**31,371**	. .
Obese	22.4 (21.7–23.2)	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)	↑
Overweight	34.6 (33.9–35.2)	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)	—
Normal	40.3 (39.5–41.2)	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)	↓
Underweight	2.7 (2.5–2.9)	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)	↓
Smoking status (*n*)	**31,295**	**33,558**	**31,176**	**31,652**	**34,194**	**32,744**	**32,160**	**33,086**	**32,499**	**32,166**	. .
Daily	18.0 (17.2–18.7)	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)	↓
Occasional	3.7 (3.4–4.0)	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)	↓
Previous	28.0 (27.2–28.8)	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)	—
Never	50.3 (49.4–51.3)	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)	↑
Alcohol consumption (*n*)	**30,414**	**32,753**	**30,347**	**30,796**	**33,347**	**31,771**	**31,190**	**33,257**	**31,640**	**31,369**	. .
At-risk alcohol level	26.4 (25.5–27.3)	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)	↓
Responsible drinker	44.9 (44.0–45.7)	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)	—
Non-drinker	28.7 (27.7–29.8)	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)	↑

(continued)

Table 13.1a (continued): Patient risk factors, 2004–05 to 2013–14

Risk factor	Per cent (95% CI)										↑↓[(a)]
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	
Adults (aged 18 years and over)											
Number of risk factors[(c)] (*n*)	**29,418**	**32,076**	**29,386**	**30,002**	**32,432**	**30,795**	**30,177**	**31,401**	**30,345**	**30,250**	. .
Zero	27.0 (26.1–27.8)	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)	—
One	48.8 (48.1–49.6)	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)	↑
Two	20.3 (19.6–20.9)	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)	↓
Three	4.0 (3.7–4.2)	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)	↓
Children (aged 2–17 years)[(d)] (*n*)	**3,018**	**3,338**	**3,087**	**3,046**	**2,970**	**3,183**	**3,008**	**3,093**	**3,069**	**2,536**	. .
Obese	10.8 (9.5–12.2)	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)	—
Overweight	17.7 (16.3–19.1)	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)	—
Normal	60.6 (58.7–62.5)	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)	—
Underweight	10.9 (9.7–12.1)	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)	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

(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. Child BMI was re-calculated for 2004–05 to 2005–06, and will differ from data previously published to incorporate this exclusion and to apply a more precise method for calculating child BMI.

Note: CI – confidence interval.

Table 13.1b: Prevalence of patient risk factors among adults 18+ attending general practice at least once, 2007–08 to 2013–14

Risk factor	Per cent (95% CI)							↑↓[a]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	
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**	. .
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)	↑
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)	—
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)	↓
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)	—
Smoking status (*n*)	**31,884**	**34,189**	**32,734**	**32,161**	**33,085**	**32,497**	**32,156**	. .
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)	↓
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)	—
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)	—
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)	↑
Alcohol consumption (*n*)	**30,796**	**33,347**	**31,771**	**31,190**	**33,257**	**31,640**	**31,369**	. .
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)	↓
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)	—
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)	↑

(continued)

Table 13.1b (continued): Prevalence of patient risk factors among adults 18+ attending general practice at least once, 2007–08 to 2013–14

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

(a) The direction and type of change from 2007–08 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2007–08; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2007–08; — indicates there was no significant change in 2013–14 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 adult males, 2004–05 to 2013–14

Risk factor	Per cent (95% CI) 2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓ [a]
Adult males (aged 18 years and over)											
Body mass index class[b] (*n*)	**12,288**	**12,882**	**12,715**	**12,126**	**13,595**	**11,945**	**12,322**	**12,531**	**12,171**	**12,022**	. .
Obese	21.3 (20.4–22.3)	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))	↑
Overweight	42.0 (41.0–43.0)	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)	—
Normal	35.3 (34.2–36.5)	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)	↓
Underweight	1.4 (1.1–1.6)	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)	—
Smoking status (*n*)	**12,613**	**13,016**	**12,257**	**12,335**	**13,841**	**12,260**	**12,600**	**12,777**	**12,518**	**12,294**	. .
Daily	21.2 (20.2–22.3)	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)	↓
Occasional	4.3 (3.9–4.7)	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)	↓
Previous	36.5 (35.3–37.6)	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)	—
Never	38.0 (36.8–39.2)	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)	↑
Alcohol consumption (*n*)	**12,294**	**12,792**	**12,005**	**12,071**	**13,583**	**11,974**	**12,321**	**12,572**	**12,274**	**12,079**	. .
At-risk alcohol level	32.6 (31.3–33.8)	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)	↓
Responsible drinker	47.7 (46.4–48.9)	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)	—
Non-drinker	19.8 (18.7–20.9)	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)	↑

(continued)

Table 13.2a (continued): Patient risk factors among adult males, 2004–05 to 2013–14

Risk factor	Per cent (95% CI)										↑↓[(a)]
	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	
Adult males (aged 18 years and over)											
Number of risk factors[(c)] (*n*)	**11,900**	**12,572**	**11,662**	**11,784**	**13,228**	**11,613**	**11,955**	**12,252**	**11,827**	**11,687**	. .
Zero	20.7 (19.8–21.6)	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)	—
One	47.0 (46.0–48.1)	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)	↑
Two	26.7 (25.7–27.6)	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)	↓
Three	5.6 (5.1–6.1)	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)	↓
Male children (aged 2–17 years)[(d)] (*n*)	**1,451**	**1,640**	**1,509**	**1,484**	**1,415**	**1,499**	**1,450**	**1,487**	**1,451**	**1,226**	. .
Obese	10.8 (9.1–12.6)	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)	—
Overweight	17.4 (15.3–19.4)	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)	—
Normal	60.4 (57.7–63.1)	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)	—
Underweight	11.4 (9.7–13.2)	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)	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

(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. Child BMI was re-calculated for 2004–05 to 2005–06, and will differ from data previously published to incorporate this exclusion and to apply a more precise method for calculating child BMI.

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 2013–14

Risk factor	Per cent (95% CI)							↑↓[a]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	
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**	. .
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)	↑
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)	—
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)	↓
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)	—
Smoking status (*n*)	**12,335**	**13,841**	**12,260**	**12,600**	**12,777**	**12,518**	**12,294**	. .
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)	↓
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)	—
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)	—
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)	↑
Alcohol consumption (*n*)	**12,071**	**13,583**	**11,974**	**12,321**	**12,572**	**12,274**	**12,079**	. .
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)	↓
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)	—
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)	↑

(continued)

Table 13.2b (continued): Prevalence of patient risk factors among adult males 18+ attending general practice at least once, 2007–08 to 2013–14

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

(a) The direction and type of change from 2007–08 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2007–08; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2007–08; — indicates there was no significant change in 2013–14 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 adult females, 2004–05 to 2013–14

Risk factor	Per cent (95% CI) 2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓[(a)]
Adult females (aged 18 years and over)											
Body mass index class[(b)] (*n*)	**17,976**	**19,976**	**19,410**	**18,703**	**19,671**	**19,735**	**18,741**	**19,605**	**19,064**	**19,112**	. .
Obese	23.2 (22.4–24.1)	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)	↑
Overweight	29.3 (28.6–30.1)	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)	—
Normal	43.8 (42.7–44.8)	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)	↓
Underweight	3.6 (3.3–4.0)	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)	↓
Smoking status (*n*)	**18,468**	**20,288**	**18,718**	**19,081**	**20,079**	**20,224**	**19,301**	**20,060**	**19,758**	**19,625**	. .
Daily	15.7 (15.0–16.5)	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)	↓
Occasional	3.3 (3.0–3.7)	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)	↓
Previous	22.2 (21.3–23.0)	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)	—
Never	58.8 (57.7–59.9)	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)	↑
Alcohol consumption (*n*)	**18,120**	**19,961**	**18,342**	**18,715**	**19,764**	**19,979**	**18,869**	**19,685**	**19,366**	**19,290**	. .
At-risk alcohol level	22.2 (21.3–23.2)	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)	↓
Responsible drinker	43.0 (41.9–44.0)	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)	↓
Non-drinker	34.8 (33.4–36.2)	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)	↑

(continued)

Table 13.3a (continued): Patient risk factors among adult females, 2004–05 to 2013–14

Risk factor	Per cent (95% CI) 2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	↑↓ (a)
Adult females (aged 18 years and over)											
Number of risk factors(c) (*n*)	**17,518**	**19,504**	**17,724**	**18,218**	**19,204**	**19,182**	**18,222**	**19,149**	**18,518**	**18,563**	. .
Zero	31.2 (30.2–32.2)	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)	↓
One	50.1 (49.2–50.9)	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)	↑
Two	15.9 (15.3–16.6)	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)	—
Three	2.8 (2.6–3.1)	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)	↓
Female children (aged 2–17 years)(d) (*n*)	**1,567**	**1,698**	**1,578**	**1,562**	**1,555**	**1,684**	**1,558**	**1,606**	**1,618**	**1,310**	. .
Obese	10.8 (9.1–12.6)	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)	—
Overweight	17.9 (16.1–19.8)	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)	—
Normal	60.8 (58.3–63.3)	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)	—
Underweight	10.4 (8.9–11.9)	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)	—

(a) The direction and type of change from 2004–05 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2004–05; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2004–05; — indicates there was no significant change in 2013–14 compared with 2004–05.

(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. Child BMI was re-calculated for 2004–05 to 2005–06, and will differ from data previously published to incorporate this exclusion and to apply a more precise method for calculating child BMI.

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 2013–14

Risk factor	Per cent (95% CI)							↑↓[a]
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	
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**	. .
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)	↑
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)	—
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)	↓
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)	—
Smoking status (*n*)	**19,081**	**20,079**	**20,224**	**19,301**	**20,060**	**19,758**	**19,625**	. .
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)	—
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)	—
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)	—
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)	↑
Alcohol consumption (*n*)	**18,725**	**19,764**	**19,797**	**18,869**	**19,685**	**19,366**	**19,290**	. .
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)	↓
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)	—
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)	↑

(continued)

Table 13.3b (continued): Prevalence of patient risk factors among adult females 18+ attending general practice at least once, 2007–08 to 2013–14

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

(a) The direction and type of change from 2007–08 to 2013–14 is indicated for each result: ↑/↓ indicates a statistically significant change (increase or decrease) in 2013–14 compared with 2007–08; ↑/↓ indicates a marginally significant change in 2013–14 compared with 2007–08; — indicates there was no significant change in 2013–14 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
RRMA	Rural, Remote and Metropolitan Area classification
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
NEC	not elsewhere classified
NOS	not otherwise specified
🡅	indicates a statistically significant increase in 2013–14 when compared with the first year of data reported
🡇	indicates a statistically significant decrease in 2013–14 when compared with the first year of data reported
↑	indicates a marginally significant increase in 2013–14 when compared with the first year of data reported
↓	indicates a marginally significant decrease in 2013–14 when compared with the first year of data reported
§	indicates a noteworthy change during the decade
–	indicates no significant change in 2013–14 when compared with the first year of data reported

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 (e.g. 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 (Royal Australian College of General Practitioners).

Generic medication: see *Medication: Generic*

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 and selected items provided by GPs classified in A11, A15 and A27.

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 and selected items provided by GPs classified in A11, A15 and A27.
- *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.

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 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 2013–14 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

START Time : AM / PM (please circle)

Patient Reasons for Encounter: 1. 2. 3.

	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) 1. ___ 2. ___ 3. ___
Home visit (not RACF) ☐
Workers comp paid ☐
Other paid ☐
No charge ☐

Diagnosis/ Problem ①: **Problem Status** New ☐ Old ☐ Work related ☐

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 ☐ Work related ☐

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 ☐ Work related ☐

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 ☐ Work related ☐

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: (in cm) ___
Weight: (in kg) ___

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 ☐

Have you spent non-billable time on the management of any of this patient's problems between their last visit and today's visit?
☐ Yes ☐ No ☐ N/A
If 'yes', approx how many minutes? ___ ☐ Unsure of time
Reason: ___

FINISH Time : AM / PM (please circle)

BA16

Appendix 2: GP characteristics questionnaire, 2013–14

THE UNIVERSITY OF SYDNEY

GP profile

Family Medicine Research Centre

Doctor Identification Number | | | | | |

Please fill in boxes or circle answers

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. In terms of providing direct patient care, is it likely in 5 years time that you will have: *(Circle one option)*

Increased number of working hours 1
Not changed number of working hours 2
Decreased number of working hours 3
Stopped working as a GP 4
Unsure about future work as a GP 5

7. Are you a GP registrar (i.e. in training)?..... **Yes / No**

8. Do you hold FRACGP? ..... **Yes / No**

9. Do you hold FACRRM? ..... **Yes / No**

10. Is a computer available at your major practice? ..... **Yes / No**

If '**yes**', which clinical software is used? *(specify)* _____

11. Do **YOU** use the computer at your major practice? ..... **Yes / No**

*If '**yes**', 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

12. 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**

13. At how many practice locations do you usually work, in a regular week.....

14. Postcode of major practice address.....

15. For your major practice, please specify the number of individuals (ie. headcount) and number of full time equivalents (FTE*) for each type of professional:

**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 enrolled nurse working 20 hours/wk is recorded as 1 individual and 0.5 FTE.*

	No. individuals	No. FTEs
(a) GPs (including yourself)		
(b) Enrolled nurses		
(c) Registered nurses		
(d) Nurse practitioners		
(e) Midwives		
(f) Aboriginal health workers		

16. Are any of the following health services located or available (on a daily or regular basis) at your major practice?
(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	☐	.....	☐

17. What are the normal after-hours arrangements for your major practice? *(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.
GP16 (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, 2013–14

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 2013–2014 are:

- ✦ The Australian Government Department of Health and Ageing
- ✦ AstraZeneca Pty Ltd (Australia)
- ✦ Merck Sharp & Dohme (Australia) Pty Ltd
- ✦ Novartis Pharmaceuticals Australia Pty Ltd
- ✦ CSL Biotherapies 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, Human 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: <purl.library.usyd.edu.au/sup/9781743324233>, see 'Electronic editions and downloads'.

This report highlights changes in general practice activity in Australia over the most recent decade (April 2004 to March 2014) of the BEACH program, a continuous national cross-sectional study of general practice activity. Over this time 9,731 general practitioners (GPs) provided details of 973,100 GP–patient encounters. The report highlights changes that have occurred over the decade in the characteristics of GPs and the patients they see, the problems managed, and the treatments provided. Changes in prevalence of overweight and obesity, smoking status and alcohol use are also described for subsamples of more than 30,000 adult patients each year.

SYDNEY UNIVERSITY PRESS
sydney.edu.au/sup

ISBN: 978-1743324233