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*Better information and statistics  
for better health and wellbeing*

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# **General practice activity in Australia 2008–09**

***BEACH***

***Bettering the Evaluation And Care of Health***

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# Foreword

Over recent times the Australian Government has initiated a number of wide-ranging reviews of healthcare delivery in this country. Much is being considered about how the health sector is governed and funded and how the various components of the health system interact and complement each other.

Primary care, and general practice in particular, is playing a key role in these discussions just as it does in the health system itself. Australia's first National Primary Health Care Strategy, sets out key directions for change in primary care including improving access, better management of chronic disease, a more systematic focus on prevention and a strong framework for quality and safety. The Strategy builds on the strengths of our existing system to harness the benefits of technology, including eHealth, and provides health care professionals with the infrastructure, equipment, skills and organisation they need to deliver improved primary health care to all Australians.

At times such as this, it is vital that the Government has available to it reliable sources of data that provide good insights upon which to make decisions.

Since its inception, the Bettering the Evaluation and Care of Health (BEACH) survey has filled an important gap in understanding what is happening in general practice in Australia. This 2008-09 BEACH report is no exception. It offers policy makers, researchers and the community an important source of data about the health issues dealt with by GPs – information about patients, the reasons for their visits, their diagnoses and how their problems were managed. It also gives us information about the activities of practice nurses.

Each year about 1,000 randomly selected GPs participate in BEACH, together providing details for about 100,000 patient-encounters. These give us understanding of the content of over 100 million GP-patient encounters that occur in Australia every year. While data recorded from claims to the MBS and PBS capture the majority of these GP encounters, they reveal very little about what happens during the consultation. This leaves a major gap in our understanding of general practice.

Read as a continuing series of data, the BEACH survey provides a picture of the changes that have occurred in the daily activities of general practitioners over the past decade as well as the breadth of health problems faced by the Australian people. Without it, our understanding of primary care would be much poorer.

As we move forward into the era of electronic transmission of health information, opportunities for capturing more information about primary care are being explored. The AIHW has recently undertaken an evaluation of primary care data in Australia with a focus on general practice. It is working with all governments to develop a core set of data items (National Minimum Data Set (NMDS)) to be collected from primary health care services. The AIHW is also collecting data from services providing care to Indigenous Australians, with a focus on maternal and child health and chronic disease care (Healthy for Life). A set of national key performance indicators for Indigenous-specific services is currently being developed, and will take into account the data collections underway.

Linkages between all this work, covering both Indigenous and mainstream services, will be critical. It will also be critical that the data standards and definitions used for our current reporting are not inadvertently changed by ehealth innovations. This is a critical aspect of the move to ehealth – we must gain much richer data without losing the foundations and

understandings we already have, as demonstrated in this latest report from the BEACH survey.

Dr Penny Allbon  
Director  
Australian Institute of Health and Welfare

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Ethics approval for this study was obtained from the Human Ethics Committee of the University of Sydney and the Ethics Committee of the Australian Institute of Health and Welfare.

# Abbreviations

ABS	Australian Bureau of Statistics
ACE	angiotensin-converting enzymes
AGPSCC	Australian General Practice Statistics and Classification Centre
AIHW	Australian Institute of Health and Welfare
ATC	Anatomical Therapeutic Chemical (classification)
BEACH	Bettering the Evaluation And Care of Health
BMI	body mass index
BP	blood pressure
CAPS	Coding Atlas for Pharmaceutical Substances
CI	confidence interval (in this report 95% CI is used)
CT	computerised tomography
CVD	cardiovascular disease
DoHA	Australian Government Department of Health and Ageing
DVA	Australian Government Department of Veterans' Affairs
encs	Encounters
FBC	full blood count
FMRC	Family Medicine Research Centre
GP	general practitioner
GPSCU	General Practice Statistics and Classification Unit
HbA1c	haemoglobin, type A1c
HIV	human immunodeficiency virus
HPV	Human Papillomavirus
ICPC	International Classification of Primary Care
ICPC-2	International Classification of Primary Care – Version 2
ICPC-2 PLUS	a terminology classified according to ICPC-2
ICS	inhaled corticosteroids
INR	international normalised ratio
LABA	long-acting beta-agonist
LCL	lower confidence limit
MBS	Medicare Benefits Schedule
NDSHS	National Drug Strategy Household Survey
NHMRC	National Health and Medical Research Council
NHS	National Health Survey

OTC	over-the-counter (that is, medications advised for over-the-counter purchase)
PBS	Pharmaceutical Benefits Scheme
RACGP	Royal Australian College of General Practitioners
RFE	reason for encounter
SABA	short-acting beta-2 agonists
SAND	Supplementary Analysis of Nominated Data
SAS	Statistical Analysis System
UCL	upper confidence limit
WHO	World Health Organization

## Symbols

–	not applicable
<	less than
>	more than
NEC	not elsewhere classified
<i>n</i>	Number
NOS	not otherwise specified

# Executive summary

This report describes general practitioner (GP) clinical activity from April 2008 to March 2009 inclusive. It summarises results from the 11th year of the Bettering the Evaluation And Care of Health (BEACH) program, using a sample of 101,100 patient encounters with 1,011 GPs.

BEACH is a continuous cross-sectional national study of general practice activity that began in April 1998. Every year approximately 1,000 randomly selected GPs participate. Each GP records details of 100 consecutive patient encounters on structured paper recording forms, and provides information about themselves and their practice. The age–sex distribution of patients at the sampled encounters has excellent precision with all Medicare GP-claimed encounters.

Smaller studies are done in subsamples of encounters. Results for patient body mass index, smoking status and alcohol consumption are reported and Abstracts are provided in this report for results of other substudies finalised in 2008–09.

A web-based summary report of data from the last 10 years of BEACH highlighting major changes over that time, *General practice activity in Australia 1999–00 to 2008–09: 10 year data tables*, is available at <[www.aihw.gov.au/publications/index.cfm/subject/19](http://www.aihw.gov.au/publications/index.cfm/subject/19)>.

## The general practitioners

Of the 1,011 GP participants in 2008–09:

- two-thirds were male, 46% were aged 55 years and over, 74% had graduated in Australia
- 12% worked less than 6 clinical sessions and 10% worked 11 sessions or more per week
- 40% had Fellowship of the Royal Australian College of General Practitioners
- 24% conducted some consultations in a language other than English
- 95% used a computer for some clinical purpose(s), four out of five produced prescriptions electronically, and over 50% of GPs reported using paperless medical records
- 85% worked in an accredited practice and 55% in a teaching practice
- 43% worked in practices of 2–4, and 29% in practices of 5–9 full-time equivalent GPs
- 68% worked in a practice that employed a practice nurse(s)
- 43% worked in practices providing their own/cooperative after-hours patient care.

## The encounters

- Direct encounters (patient was seen by the GP) accounted for 98.6% of all encounters.
- About 97% of all direct encounters were claimable either through Medicare or the DVA.
- The measured mean length of MBS/DVA-claimable encounters in 2008–09 was 14.6 minutes and the median length was 13.0 minutes.

## The patients

- Patients aged less than 25 years accounted for 20% of encounters; 25–44 year olds 21%; 45–64 year olds 29%, and patients 65 years and over 30% of encounters.

- Females accounted for 58% of encounters, and new patients to the practice 6%.
- Half the encounters were with patients who held either a Commonwealth concession card (46%) or a Repatriation health card (3%).
- At 1% of encounters the patient identified as an Aboriginal and/or Torres Strait Islander person and at 10% the patient was from a non-English-speaking background.
- At 57% of encounters only one reason for encounter (RFE) was recorded, at 30.3% two RFEs were recorded and at 13% of encounters three RFEs were recorded.
- Of the top 30 most common RFEs, 19 were descriptions of symptoms such as cough, throat and back complaints, and rash. However, four of the top five RFEs were requests for check-ups, prescriptions, test results and immunisations, and together these RFEs accounted for a quarter of all RFEs.

## Problems managed

On average GPs managed 1.5 problems per encounter, the number per encounter increasing with patient age. The most common problems managed were:

- respiratory problems (21 per 100 encounters) – in particular upper respiratory tract infection, respiratory immunisations, acute bronchitis and asthma
- cardiovascular problems (such as hypertension and cardiac check-ups)
- musculoskeletal problems (such as arthritis and back complaints)
- problems of a general and unspecified nature (such as immunisations and check-ups)
- skin problems (such as contact dermatitis and solar keratosis/sunburn).

Chronic conditions made up 36% of all problems managed, the most common being non-gestational hypertension (18% of chronic conditions), depressive disorder (8%), non-gestational diabetes (7%), lipid disorders (7%), and chronic arthritis (7%).

## Management actions

For an 'average' 100 GP-patient encounters, GPs recorded 106 medications, 34 clinical treatments, 17 procedures, 9 referrals to specialists and 4 to allied health services, and ordered 46 pathology and 10 imaging tests.

### Medications

- 81% of all medications were prescribed, 10% were supplied to the patient by the GP and 8% were recommended by the GP for purchase over the counter.
- No prescription was given for 55% of all problems managed, one was given for 37%, two for 6%, and more than two for 2%.
- Medications most often prescribed were the anti-infectives amoxicillin (4% of all prescriptions), amoxicillin (3%) and cephalexin (3%); the analgesics paracetamol (3%) and paracetamol/codeine (2%); and the lipid modifying agent atorvastatin (2%).

### Other treatments

- There were 51 other treatments per 100 encounters, two-thirds being clinical treatments (34 per 100 encounters), and one-third procedures (17 per 100).
- Preventive clinical activities (7 per 100 encounters) included counselling about nutrition and weight, and counselling/advice for exercise, smoking, prevention and alcohol.

- Psychological counselling was provided at a rate of 3 per 100 encounters
- Of the procedures, excisions/biopsies were the most frequent (3 per 100), followed by dressings and local injections (both 2 per 100) and incisions (1 per 100).

### Referrals and admissions

- The patient was referred at 13% of all encounters. Two-thirds of referrals were to specialists, 28% to allied health services and <1% to hospitals or emergency departments.
- Referrals to specialists (9 per 100 encounters), were most often to surgeons (10%), ophthalmologists (9%), orthopaedic surgeons (9%) and dermatologists (8%).
- Referrals to allied health services (4 per encounters) were often to physiotherapists (34%), psychologists (19%), podiatrists (9%) and dietitians or nutritionists (7%).

### Tests and investigations

**Pathology:** At least one pathology test order was recorded at 18% of encounters (for 14% of problems managed). Chemistry tests accounted for more than half of all orders, the most common measuring lipids (4.8 orders per 100 encounters), EUC (3.4), liver function (3.3), and glucose/glucose tolerance (2.7 per 100 encounters).

**Imaging:** At least one imaging tests was ordered at 9% of encounters (for 6% of problems managed). Diagnostic radiology accounted for almost half of these and ultrasound for 37%.

### Practice nurse activity

- Practice nurses were involved in 6% of encounters and 4% of all problems managed.
- Practice nurse activities were mainly procedural (93%) and these procedures represented 30% of all procedures recorded. Clinical treatments accounted for 7% of practice nurse activity, but the practice nurse provided less than 2% of all recorded clinical treatments.
- The most common procedures done by practice nurses were injections (37% of their recorded procedures), dressings (21%), incisions (7%), INRs (6%) and check-ups (6%).
- At 61% of encounters involving the practice nurse, no practice nurse Medicare item was recorded as claimable. The most commonly recorded item was for immunisation (64%).

### Patient risk factors

**Overweight and obesity in adults:** In the sample of 33,526 patients, 25% were obese and 36% overweight. After adjusting for age–sex attendance patterns, prevalence in the attending adult population was 25% obese, 35% overweight, 38% normal and 2.4% underweight.

**Overweight and obesity in children (2–17 years):** Of 2,970 children, 27% were overweight (17%) or obese (11%). There was no difference in prevalence of overweight/obesity among male (29%) and female children (26%).

**Smoking status:** Of 34,194 adult patients, 15% were daily smokers (18% of males and 13% of females), but after adjustment for age–sex attendance patterns, an estimated 19% of the population attending general practice were daily smokers.

**Alcohol consumption:** One-quarter of 33,347 adult respondents reported drinking at-risk levels of alcohol. After adjustment for attendance rates, prevalence of at-risk drinking among the adult population attending general practice was 29%.