

# BEACH overview

**Australian Institute of  
Health and Welfare  
Australian GP Statistics  
and Classification Centre,  
University of Sydney, New  
South Wales.**

The BEACH (Bettering the Evaluation and Care of Health) program, a continuous national study of general practice, began in April 1998 and is now in its eighth year. More than 7500 GPs have participated to date (about one-third of the total workforce) and data are available for about 750 000 encounters. The following overview is designed to disseminate key findings from BEACH, to publicise the annual report<sup>1</sup>, and as a public expression of gratitude to the GP participants without whose generous contribution this study would not be possible.

**General practice is the first port of call for most patients in the Australian health care system. Most Australians visit a general practitioner at least once a year, so it is important to get some insight into the health and treatment of such a large proportion of the community.**

## BEACH methods

- Paper based data collection
- National GP random sample (from MBS claims)
- 1000 GPs per year (20 GPs record per week)
- 100 consecutive encounters per GP
- 100 000 encounters per annum, weighted to represent all Australian GP encounters
- Sub-sampling of selected topics, including population risk factors (smoking, alcohol use, body mass index).

## ICPC-2

Data collected are classified using the International Classification of Primary Care<sup>2</sup> Version 2 (ICPC-2) (developed by the World Organisation of Family Doctors [WONCA]) which includes categories for diagnoses, symptoms, ill defined conditions, clinical treatments, referrals, pathology and radiology.

## CAPS

Medications are classified using the Coding Atlas for Pharmaceutical Substances (CAPS):

- Hierarchical system divided into drug groups and sub-groups based on anatomical site and therapeutic utility
- Mapped to ATC<sup>3</sup> codes and compatible with MIMS
- Pharmaceutical data include drug name, strength, dose, frequency and number of repeats.

## Changes in GP characteristics

Changes in GP characteristics measured since 1990–1991<sup>4</sup> show that women now account for approximately 35% of the total GP workforce. This proportion is likely to

increase as over 50% of current medical graduates are women<sup>5</sup> and women are more likely than male graduates to select general practice as a profession<sup>6</sup> (Figure 1).

The workforce is also getting older. One-third of the current workforce is aged 55 years and over and this proportion has increased, particularly over the past 5 years (from 22% in 1998–1999). The control of numbers entering general practice since the mid 1990s has impacted on the number of young GPs coming through, and will continue to do so.

General practitioners have moved away from solo general practice toward large group practices of five or more practitioners, again with the most noticeable increase

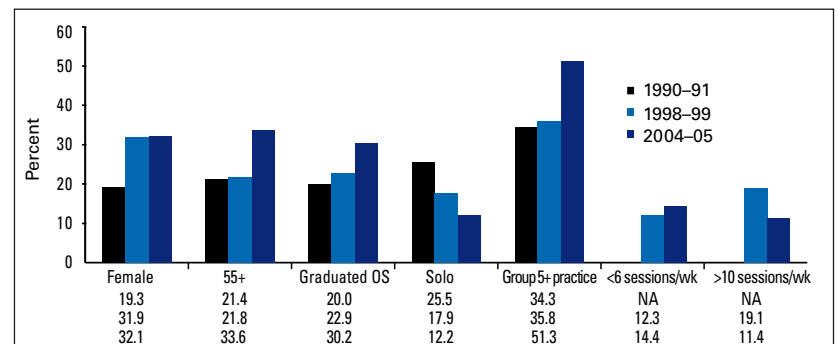


Figure 1. Changes in the characteristics of GPs 1990–1991 to 2004–2005

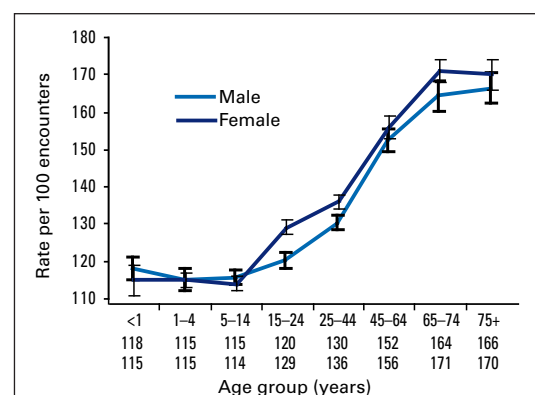


Figure 2. Age-sex specific rates of problems managed per 100 encounters in 2004–2005. Note: missing data removed

occurring in the past 5 years. The increasing burden of practice costs borne by solo GPs has been a probable catalyst for this change.

Although data are not available before 1998–1999, since then the number of sessions worked in the average week has changed significantly. More GPs are working fewer than six sessions per week while the proportion working 10 or more sessions per week has decreased. Initially thought to reflect the feminisation of general practice, the change is actually not in women GPs but in men GPs.

The proportion of overseas trained doctors has increased significantly since 1990, particularly in the past 5 years. Fewer young graduates entering general practice, the greater proportion working fewer sessions per week, and the feminisation of general practice have all contributed to the workforce shortage being met by medical graduates from outside Australia.

## Morbidity and treatment

The number of problems managed at encounters increased steadily with the age of the patient. Significantly more problems were managed overall at encounters with female

patients than at those with male patients (*Figure 2*).

Since 1990–1991 there has been a noticeable change in the pattern of problems managed. *Figure 3* shows a decrease in the management rate of acute problems such as URTI and acute bronchitis, with an associated decrease in the rate of asthma management. However, the management rate of chronic problems such as depression, diabetes and lipid disorders has increased significantly over this time period.

## Locality of practice

Our investigation of general practice activity using the Rural and Remote Area classification (RRMA), showed differences in morbidity management when RRMA categories were compared with the national average<sup>7</sup> (*Table 1*). RRMA category specific proportions of encounters with male patients, patients aged 65 years and over, and with indigenous patients are shown in *Figure 4*. The RRMA category specific rates of management per 100 problems showed

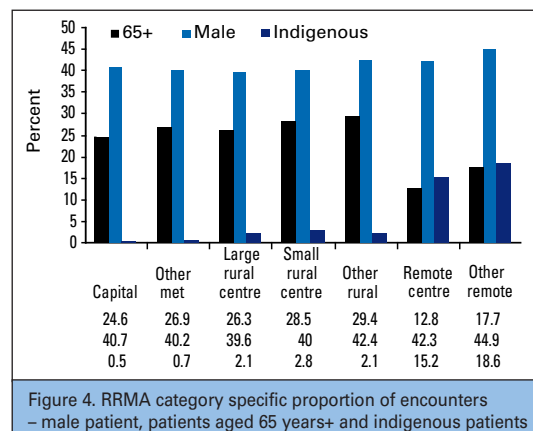


Figure 4. RRMA category specific proportion of encounters – male patient, patients aged 65 years+ and indigenous patients

higher rates of medications (particularly GP supplied), clinical treatments, procedures and pathology orders with increasing remoteness.

Conflict of interest: none.

## Acknowledgments

Our thanks to the following organisations for their financial support and their contribution to the BEACH program since 1998: the Australian Government Department of Health and Ageing, AstraZeneca (Australia), Aventis Pharma Pty Ltd, Roche Products Pty Ltd, Janssen-Cilag Pty Ltd, Merck Sharp & Dohme (Australia) Pty Ltd, Pfizer Australia, the Australian Government Department of Veteran's Affairs, and the National Occupational Health & Safety Commission.

## References

1. Britt H, Miller GC, Knox S, et al. General practice activity in Australia 2004–05. AIHW Cat. No. GEP 18. Canberra: Australian Institute of Health and Welfare (General Practice Series No. 18).
2. Classification Committee of the World Organisation of Family Doctors (WICC). ICPC-2: International Classification of Primary Care. 2 ed. Oxford: Oxford University Press, 1998.
3. World Health Organisation Collaborating Centre for Drug Statistics Methodology (WHO). Anatomical therapeutic chemical (ATC) classification index with defined daily doses (DDDs). Oslo: WHO, 1997.
4. Bridges-Webb C, Britt H, Miles DA, Neary S, Charles J, Traynor V. Morbidity and treatment in general practice in Australia 1990–1991. *Med J Aust* 1992;157(Suppl): S1–56.
5. Australian Medical Workforce Advisory Committee. Towards gender balance in the Australian medical workforce: some planning implications. *Aust Health Rev* 2000;23:27–42.
6. Harris MG, Gavel PH, Young JR. Factors influencing the choice of speciality of Australian medical graduates. *Med J Aust* 2005;183:295–300.
7. Knox S, Britt H, Pan Y, et al. Locality matters: the effect of geography on general practice activity in Australia 1998–2004. AIHW Cat. No. GEP 17. Canberra: Australian Institute of Health and Welfare (General Practice Series No. 17).

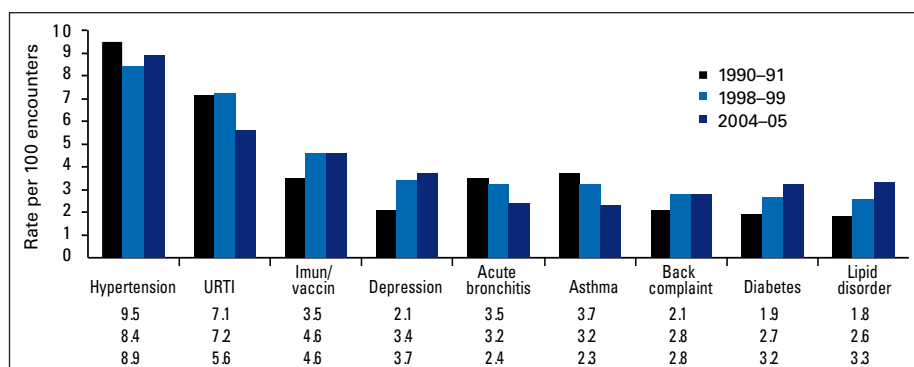


Figure 3. Significant changes in problem management rates 1990–2005

Table 1. Morbidity managed more often than the national average (by RRMA)

RRMA category	Morbidities managed more often than national average
Capital cities	Upper respiratory tract infection
Other metropolitan	Ischaemic heart disease
Large rural centre	Depression, solar keratosis, malignant skin neoplasms
Small rural centre	Solar keratosis, malignant skin neoplasms, pre/postnatal check, heart failure
Other rural area	Hypertension, oesophageal disease, IHD, solar keratosis, fracture
Remote centre	Acute otitis media/externa, pre/postnatal check, pregnancy
Other remote	Pre/postnatal check, fracture, diabetes, general check up