

**General practice activity in Australia  
1998–99**

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The General Practice Statistics and Classification Unit is a collaborating unit of the Australian Institute of Health and Welfare and the University of Sydney, situated within the Family Medicine Research Centre at Westmead Hospital. It fulfils the obligation of the Australian Institute of Health and Welfare to collect statistics regarding general practitioners, their patients and their patients' care.

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# *BEACH*

## Bettering the Evaluation And Care of Health

# General Practice Activity in Australia 1998–99

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# Foreword

Almost all of us visit a general practitioner at least once in any two year period, most of us much more frequently. General practice is our usual point of entry into a complex health service. Thereafter we may need tests by pathologists or radiologists, opinions and treatment from medical specialists or allied health professionals, access to community services, or on occasions to be admitted to hospital. General practitioners have a pivotal role as gate-keepers and in coordinating our care in the health service.

Over the last forty years there have been only three major national studies of the activities of general practice, the last being almost a decade ago. In 1995 the urgent need for the collection of standardised information about primary care was identified as one of the highest priorities in the National Health Information Development Plan.

The Australian Institute of Health and Welfare is responsible for the development and provision of authoritative and timely information on the health and welfare of Australians. To date assessment of Australia's health has by necessity relied on self report through the ABS National Health Survey, and on Health Insurance Commission data which tell us about service utilisation. Data from hospitals, disease registers and mortality statistics have provided information about those with serious disease but not about the many health problems faced every day, often managed solely by general practitioners.

The Australian Institute of Health and Welfare, recognising the expertise and international reputation of the University of Sydney's Family Medicine Research Centre in this field, collaborated with the University to form the General Practitioner Statistics and Classification Unit (GPSCU). The GPSCU's primary responsibility is to make good the need for information about general practice.

The BEACH program operates on a continuous basis and relies on the efforts of about 1,000 general practitioners per year to record the information. I thank and congratulate the participating general practitioners for recognising the need for such data and generously contributing their time.

This report describes general practice activity drawn from the first year of the BEACH program. It demonstrates the immense breadth of general practice- from the management of acute to chronic conditions, from minor illness to severe morbidity, from screening and prevention to the care of the terminally ill. It also gives us an insight into the management of these problems - the complex mix of pharmaceutical prescribing with therapeutic procedures and the provision of counseling, advice and support.

BEACH is an extension of the Family Medicine Research Centre's earlier work and includes new developments in classification and more sophisticated analytical techniques than earlier studies. It informs us about some aspects of health care where previously we have known nothing, such as the extent to which GPs provide care to our Indigenous population, the amount of work-related problems managed in primary care and extent to which GPs provide clinical services that are not covered by Medicare.

This report will provide general practice with a rich data source from which it may identify its strengths and weaknesses and build for its further growth. It will help us identify issues for teaching and research. For many others interested in health services research, population health, the burden of disease or the quality of health care, this report will be a valuable resource.

I congratulate the research team on this first years report and look forward to seeing many more reports of the BEACH data through the continued successful collaboration of the University with the AIHW.

Professor Stephen Leeder

Dean

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# Summary

This report details findings from the first year (1998–99) of a study of general practice activity in Australia known as BEACH (Bettering the Evaluation and Care of Health). The concept of the BEACH program originated from members of the Family Medicine Research Centre, University of Sydney, who hoped to gather reliable general practice data and combine it with patient risk factors and health states. The aim was to provide users with up-to-date information from an ongoing national database of GP–patient encounters. A goal of 1,000 GP participants per year was set. To this end, the General Practice Statistics and Classification Unit, a component of the Family Medicine Research Centre, was formed as a collaborating body of the Australian Institute of Health and Welfare. A consortium of groups from government and industry agreed to support the program.

The GP recording period that generated the data for this report began in April 1998 and ended in March 1999. A random sample of 984 general practitioners (38.4% of those with whom contact was established) took part during that time, each recording details of 100 consecutive patient encounters. This produced a total dataset of 98,400 encounters. Each participant also provided information about themselves and their practice. Results are reported in terms of patient reasons for encounter, problems managed, medications and other treatments provided, referrals and tests ordered. Patient demographics such as age, sex, postcode and ethnic background are included. Data on patient health status, risk factors and other selected topics were also gathered and will be reported in a separate publication.

## **The general practitioners**

Males made up 70% of participants and GPs aged 45 years or older accounted for 57.3%. One in five participants were in solo practice and 23.5% had graduated in a country other than Australia.

A comparison between participants and doctors from the random sample who declined to participate found no significant differences in GP characteristics with the exception of age group. Participants were significantly older and GPs aged less than 35 years were under-represented. The encounter data went through post-stratification weighting to overcome the difference and ensure that the BEACH dataset was representative of Australian general practice. The weighting also incorporated the differential activity level of GPs to improve the national estimates.

## **The encounters**

There were 96,901 encounters (weighted) included in the analysis. The majority were direct encounters (patient seen) though 3.3% were indirect (patient not seen). Over 90% of encounters were Medicare paid and of these most were conducted in the surgery (93.3%). The encounters involved 141,766 reasons for encounter, 140,824 problems managed and 106,320 medications, 41,839 non-pharmacological treatments, 10,866 referrals, 23,872 pathology test orders and 6,844 orders for imaging.

## **The patients**

The age distribution of patients at encounter showed that 15.8% of encounters were with children, 9.8% with young adults and there was an even spread across the other age groups. Patients were female at 57.7% of encounters, were health care card holders at 47.3%, and

were from a non-English speaking background at 14.5% of encounters. A small number (1.1%) identified as Aboriginal people or Torres Strait Islanders.

Up to three reasons for encounter could be recorded at each consultation. Patients described an average of 146 reasons for encounter per 100 encounters. A request for a check-up was the most common, described at a rate of 13.7 per 100 encounters, followed by prescription request (8.2) and cough (6.2).

### **Problems managed**

Doctors could record up to four problems at each encounter. Problems were managed at a rate of 145 per 100 encounters, and 48.5% of these were considered to be new to the patient. At 66.3% of encounters only one problem was recorded.

The most common problems managed were hypertension, at a rate of 8.3 per 100 encounters, upper respiratory tract infection (URTI) at 6.8 per 100, immunisation/vaccination at 5.2 per 100 and depression at 3.5 per 100 encounters.

### **Treatments**

Participants could record up to four medications for each problem and these could be prescribed (85.3% of all medications), supplied by the GP or advised for over the counter purchase. Medications were recorded at a rate of 109 per 100 encounters, or, in terms of the problems managed, at a rate of 75 per 100 problems.

Medication groups most frequently prescribed were antibiotics, cardiovascular or central nervous system drugs. Overall, individual medications were most commonly paracetamol, which accounted for 5.8% of all medications, amoxicillin (3.0%) and the paracetamol/codeine combination (2.7%).

Up to two non-pharmacological treatments could be recorded per problem and they were divided into clinical treatments and procedures. At least one such treatment was provided at a rate of 25.4 per 100 encounters. The most frequently provided clinical treatment was advice about treatment of a problem (at a rate of 6.2 per 100 encounters), while the most common procedure was excision or removal of tissue (at 2.8 per 100).

### **Referrals, admissions and investigations**

One or two new referrals could be recorded for each problem and at least one was given at 7.8% of encounters. The most frequent referrals to specialist medical practitioners were to surgeons while the majority of referrals to allied health services were to physiotherapists. Admissions to hospital occurred infrequently (0.7 per 100 encounters).

At least one pathology test was ordered at 13.2% of encounters with full blood count being the most common. At least one order for imaging was made at 6.3% of encounters and chest X-ray was the most common.

### **Comparison with data from 1991**

A comparison with results from a similar study carried out in 1991 found statistically significant changes in the management rates of a number of problems including an increase in immunisation/vaccination and depression and a decrease in the rate of asthma management. There were significant changes in individual drug prescribing rates.

## **Selected topics**

Data were analysed in terms of some specific areas of interest covered by BEACH.

Morbidity managed at encounters where the patient identified themselves as an Aboriginal person and/or Torres Strait Islander indicated that the age distribution of these patients differed markedly from that of non-Indigenous patients and about 40% lived in capital cities. URTI was the most common problem managed for these Indigenous patients, followed by acute bronchitis and diabetes.

Indirect encounters (where the patient is not seen and the GP receives no fee) represented 3.1% of encounters. The problem most frequently managed was a request for a prescription and the most frequent medication prescribed was temazepam.

Factors relating to gender of the GP were explored. Female GPs were generally younger with a younger patient population, two-thirds of whom were female. They recorded a higher rate of long consultations and number of problems managed per encounter.

Analysis of data across States showed that 37% occurred in New South Wales and 24% in Victoria. New South Wales had the highest rate of hypertension and Western Australia had a much higher rate of immunisation/vaccination than the other States.

## **Conclusion**

This report has served to provide an overview of the activities of general practice and of the normative behaviour of almost 1,000 general practitioners who together have more than 10,000 years clinical experience. It gives an indication of the enormous potential of the database to answer questions about the majority of the population who visit a general practitioner each year, about the health issues they bring to the doctor and the ways in which these problems are managed in general practice. More detailed analyses of specific topics of interest will be undertaken in the future.

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