

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.