

Appendix: Data on general practice

The clinical activities of general practitioners are the subject of an ongoing national survey known as BEACH (Bettering the Evaluation and Care of Health). The study is conducted by the General Practice Statistics and Classification Unit (an AIHW collaborating unit) within the Family Medicine Research Centre, University of Sydney. BEACH began in April 1998 and involves a random sample of approximately 1,000 general practitioners (GPs) per year. Data in Section 3.1 are derived from the BEACH survey, and an earlier survey undertaken in 1990–91. A brief description of the data and methods used in these collections is given below.

1990–91 data

These data are drawn from the Australian Morbidity and Treatment Survey 1990–91 (AMTS). This one-year paper-based survey of doctor–patient encounters was the culmination of a number of studies undertaken by a group of researchers from the University of Sydney which explored and tested the methodology of research into general practice. These same methods have formed the basis of the BEACH survey.

In the AMTS, a stratified (by state) random sample of 495 general practitioners recorded all consultations that took place in the surgery or in the patient’s home for two periods of 1 week, 6 months apart. The total data set contained 113,467 encounters, which were analysed in terms of type of consultation, patient reasons for encounter, problems managed and their treatments, tests, referrals and follow-up. A total of 167,002 problems were managed and 112,377 medications were prescribed or provided (Bridges-Webb et al. 1992).

Data for 1998–99 to 2001–02

These data are from the BEACH program, a continuous national study of general practice activity since 1998. The methods adopted in the BEACH program have been described in detail elsewhere (AIHW: Britt et al. 2002). In summary, each of the recognised GPs in an annual random sample of approximately 1,000 records details about 100 doctor–patient encounters of all types (for a detailed description of GPs ‘recognised’ by the Health Insurance Commission see AIHW: Britt et al. 1999: xxxvi.). The information is recorded on a structured encounter form (on paper). It is a rolling sample, being recruited approximately 3 weeks ahead. Approximately 20 GPs participate each week, 50 weeks a year.

The source population includes all GPs who claimed a minimum of 375 general practice A1 Medicare items (items 1–51, 601, 602) in the most recently available three-month HIC data period. This equates with 1,500 Medicare claims a year and ensures inclusion of the majority of part-time GPs whilst excluding those who are not in private practice but claim for a few consultations a year. The General Practice Branch of the Australian Government Department of Health and Ageing (DoHA) draws the sample on a regular basis.

The randomly selected GPs are approached initially by letter, then by telephone follow-up. GPs who agree to participate are set an agreed recording date approximately 3 to 4 weeks ahead. A research pack is sent to each participant about 10 days before their planned recording date. A telephone reminder is made to each participating GP in the first days of the agreed recording period. Non-returns are followed up by regular telephone calls.

Statistical methods

In the analysis of the BEACH database the encounter is the primary unit of analysis. Proportions (%) are only used when describing the distribution of an event that can arise only once at a consultation (e.g. age, sex or item numbers) or to describe the distribution of events within a class of events (e.g. problem A as a per cent of total problems).

Rates per 100 encounters are used when an event can occur more than once at the consultation (e.g. patient reasons for encounter, problems managed or medications). Rates per 100 problems are also sometimes used when a management event can occur more than once per problem managed. In general, results present the number of observations (n), rate per 100 encounters and the 95% confidence intervals (CIs).

The BEACH study is essentially a random sample of GPs, each providing data about a cluster of encounters, rather than a simple random sample of encounters. When a study design other than simple random sample is used, analytical techniques that consider the study design should be employed (Sayer 1999). In reporting BEACH results annually, the standard error calculations used in the 95% confidence intervals accommodate both the single-stage clustered study design and sample weighting according to Kish's description of the formulae (Kish 1965). In annual analyses of results, post-stratification weighting is applied to the raw data before each year's analysis to account for under representation of GPs in any particular group such as age, sex or activity level (AIHW: Britt et al. 2000:16).

Data elements in BEACH

Information about the patient includes date of birth, sex, postcode of residence. Tick boxes are provided for health care card holder, Veterans' Affairs white card holder, Veterans' Affairs gold card holder, non-English speaking background, an Aboriginal person (self-identification) and Torres Strait Islander (self-identification). Space is provided for up to three patient reasons for encounter (RFEs).

The content of the encounter is described in terms of the problems managed and the management techniques applied to each of these problems. Data elements include up to four diagnoses/problems. Tick boxes are provided to denote the status of each problem as new to the patient (if applicable) and if it was thought to be work-related.

Management data for each problem include medications prescribed, over-the-counter medications advised and other medications supplied by the GP. Details for each medication comprise brand name, form (where required), strength, regimen, status (if new medication for this problem for this patient) and number of repeats. Non-pharmacological management of each problem includes counselling and procedures, new referrals, and pathology and imaging ordered.

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