

1 Introduction

Population health and health improvements resulting from interventions and strategies need to be monitored. General practice is commonly identified as a significant intervention point for health care and health promotion because general practitioners have considerable exposure to the health of the population. As about 80% of the population visit a GP in any one year (Commonwealth Department of Health and Family Services 1996), general practice would appear to provide a suitable basis from which to monitor many aspects of the health of the population. Furthermore, general practice provides over 100 million consultations per year and is the most frequent point of entry into the health care system (Health Insurance Commission 1999). General practice is therefore a suitable source of health care delivery information as well. When collecting population health information it may be more cost-effective to enlist the support of a number of general practitioners who provide access to a number of patients, particularly where the data are collected as part of a larger study, than (for example) to conduct a national population survey. However, the reliability of extrapolating from such encounter-based cluster sample surveys (see below) to the general population would need to be investigated.

The BEACH (Bettering the Evaluation And Care of Health) program is a continuous national study of general practice activity collecting information about the GP patient encounter. It involves some 1,000 general practitioners (GPs) and provides details regarding approximately 100,000 encounters per year (Britt et al. 1999a; Britt et al. 1999b). Since the GPs actively record the information on structured encounter forms, the data collection process also makes possible concurrent collection of information about the patients themselves (e.g. their health status, risk factors, existing morbidity) and about health care delivery (e.g. use and effectiveness of medication and treatment, use of other health services).

The BEACH program has three primary aims:

- to provide a reliable and valid data-collection process for general practice that is responsive to the ever-changing needs of information users;
- to establish an ongoing database of GP–patient encounter information; and
- to assess patient risk factors and health states and the relationship these factors have with health service activity.

This report addresses the third of these aims and also investigates aspects of health service delivery related to the patients at the surveyed encounters.

The national SAND (Supplementary Analysis of Nominated Data) program, within BEACH, is concerned with the provision of patient population data. The original concept of SAND (the focus of a doctoral thesis—Sayer GP in preparation) stems from a concept used in other surveys and surveillance systems which employ a sub-sampling methodology as part of a wider program of investigation. For example, the NSW midwives data collection collected maternal smoking status in conjunction with the mother and baby variables (New South Wales Health Department 1994) while the National Health Survey has included nutritional sub-sampling as part of the wider health survey (Australian Bureau of Statistics 1996). Prior to the national study reported here, the SAND methods were piloted in Western Sydney and in Victoria during 1997.

There are several advantages in asking the patient additional health related items at the time of the GP–patient encounter. First, the variables can be linked to other aspects of the encounter for epidemiological investigations of the relationship between risk factors and morbidity (e.g. body mass and diabetes). Second, the presence of the GP at the time of

patient questioning may provide more reliable data, especially in topics covering pharmacological management or past history. The combination of patient recall and the medical record held by the GP as a source of information would be preferable to recall only. Third, the GP can often provide insight into aspects of the patient's health that are not covered by the current consultation (e.g. co-morbidity, patient history). Fourth, the final sample generates a large number of observations from a randomly selected sample of GPs in an efficient and timely manner. Last, but not least, because the majority of topics investigated in SAND change every five weeks, results are available in a timely manner—from the inception of the research question to reporting of results takes less than six months.

There are, however, possible disadvantages that may impact on the reliability and validity of the data collected. First, GPs may fail to complete the question-asking process because of time constraints in the course of the consultation. Second, patients may not accurately report risk factor status (e.g. smoking and alcohol use) even to their GP. Third, it is a clustered sample of persons attending general practice and such a sample is likely to be different, no matter how marginally, from the general population. Lastly there is a possibility that one patient may be seen twice by the GP during his/her BEACH recording period and that the same SAND question will apply to both encounters. The chances of this are far less than in the total BEACH database because each recording pack is divided into sub-samples of SAND questions. However to allow for this possibility these data should still be regarded as encounter based, rather than patient based. Through out this report the term 'patients' is sometimes used for convenience, but the accurate description is 'patient encounters'.

The SAND program began in conjunction with BEACH in April 1998. Each organisation supporting the BEACH program has access to a sub-sample of 6,000 encounter forms per year in which to insert a series of questions (or two sets of questions in two smaller samples) on a subject of their choice. The organisation receives a report of its SAND results as soon as they are available. Access to these results is given to all other supporting organisations some three months later.

The following report describes the results from each of the topics covered in the first 12 months of SAND. The report demonstrates the versatility of SAND for it includes results from questions asked of the patient and from other questions asked of the GP. Sometimes information is drawn from both sources. The topic reports are not intended to be exhaustive descriptions of the results for each topic. Rather, they provide an introduction to the major findings from the seventeen topics investigated through the sub-sampling methodology. Reports of more detailed analyses of some of these topics will be published elsewhere.