

General practice activity in Australia 2004–05

Australian GP Statistics and Classification Centre

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General Practice Statistics and Classification Unit 2004. *SAND abstracts from the BEACH program*. Sydney: AIHW/University of Sydney. Viewed 26 August 2005, http://www.fmrc.org.au/publications/SAND_abstracts.htm.

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Bettering the Evaluation and Care of Health

General practice activity in Australia 2004–05

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Foreword

The release of this seventh annual report on *General Practice Activity in Australia* is another milestone for the BEACH program, and will be the last while I am AIHW Director. I am therefore delighted to be able to make some introductory remarks.

Primary care practitioners are pivotal to the Australian health system. GPs provide a large volume of treatment and advice, and they are also gatekeepers for entry into the secondary and tertiary segments of the health system.

The BEACH survey provides unique and valuable insights into what happens *inside* Australian general practice. It delivers very rich information on doctor-patient encounters, on such matters as – the reasons for the encounter and the number and mix of problems managed; medications prescribed or advised; non-pharmacological management of health conditions; pathology and imaging investigations ordered; and referrals or admissions to other segments of the health system. It also describes practitioners and the ways they conduct their practices, including their use of computers. Around 85% of Australians visit a GP in any one year, and the survey provides information on the characteristics of patients, including important insights into risk factors that will influence the future course of Australians' health.

The database generated by the BEACH program over the past seven years now covers 700,000 patient encounters, and supports analyses of trends in general practice, practitioners and patients over time. Two recent reports – *General Practice Activity in the States and Territories of Australia 1998–2003* and *Locality Matters: the Influence of Geography on General Practice in Australia 1998–2004* – have demonstrated the power of the database to answer questions that cannot be addressed using any other data source. This latest annual report also draws on the cumulative value of the database, with its greater emphasis on changes in morbidity and management through the life of the BEACH survey. I find the topical presentations on health priority areas of particular interest, and think they provide a springboard for much further analysis and discussion.

The BEACH program is conducted under a collaborative arrangement between the University of Sydney and the Australian Institute of Health and Welfare. Professor Helena Britt and Professor Graeme Miller have been fine colleagues, and represent a strong team committed to high quality and vibrant general practice in Australia.

For most of its life, the BEACH program has been funded through a mix of government and private sector financial support and is, in my view, a very successful model of its kind. I trust that the program will be maintained and enhanced for many years to come.

These annual reports make a major contribution to the better understanding of primary care. And the data generated by the BEACH survey are an essential element of the statistical portraits of the whole health system that are presented in *Australia's Health* and other Institute publications.

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Director, Australian Institute of Health and Welfare

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Executive summary

The BEACH (Bettering the Evaluation and Care of Health) program provides us with knowledge about the content of the GP–patient encounters and of the services and treatments provided by GPs. It gives an important insight into the health of our community. BEACH is a continuous study of general practice activity that began in April 1998. It is unique. It is the only continuous randomised study of general practice activity in the world, and the only national program which provides direct linkage of management actions (such as prescriptions, referrals, investigations) with the problem under management.

In Australia:

- about 85% of the Australian population (approximately 19.8 million) visit a GP in any one year
- GPs perform a gatekeeper role for entry into the secondary and tertiary health sectors
- in 2003 there were 100 full-time equivalent GPs (based on a 45 hour working week) per 100,000 population
- in the 2004–05 financial year, there were about 94 million unreferral attendances paid by Medicare (A1 and A2 items) at an average rate of 4.5 GP visits per person
- primary costs for these general practice services were around \$2 billion and secondary costs generated from these services totalled over \$4 billion.

This report provides an overview of results from the seventh year of the program (April 2004 to March 2005). It also investigates changes in morbidity and management demonstrated over the last five to seven years. Summaries of results for each of the past five years are provided in Appendix 5, <www.aihw.gov.au/publications/index.cfm>.

The BEACH program relies on the cooperation of randomly selected GPs across the country. Each completes details for 100 consecutive GP–patient encounters on structured paper encounter forms. They each also provide information about themselves and their practice. About 1,000 GPs participate in BEACH each year and the sample is everchanging. Participants gain points towards their quality assurance requirements for continued vocational registration.

The sample frame for the study is all active medical practitioners who claimed at least 375 A1 Medicare items of service from the Health Insurance Commission (HIC) in the most recent data quarter. The Australian Government Department of Health and Ageing draw samples from HIC data. We approach the GPs by letter with telephone follow-up.

In the 2004–05 BEACH data year, 953 GPs provided details for 95,300 encounters. Results are reported in terms of GP and patient characteristics, patient reasons for encounter, problems managed and management techniques used. Questions about selected patient health risk factors were asked of a subsample of patients, and the results are included in this publication. Other substudies covered in the seventh year of BEACH are reported at <www.fmrc.org.au/publications/SAND_abstracts.htm>.

The format of this report is somewhat different from earlier BEACH annual reports. It concentrates more on the measurement of changes over time in each aspect of the data set. Chapter 2 provides an overview of all measured changes (red margin), and Chapter 3 (red margin) investigates in greater detail some specific topics, selected on the basis of topical

interest in terms of public health initiatives or developments in treatments. In particular, topics were examined that are associated with the National Health Priority Areas.

The annual results for BEACH 2004–05 are in Chapter 4 (blue margin). The methods are described in Chapter 5. Appendices 1 and 2 are included, and the remainder are on the web.

The GPs who participated in BEACH 2004–05 were found to be representative of all GPs in the original sample frame. For the first time since BEACH began in 1998–99 there was not an under-representation of younger GPs. This was probably because there has been a recent change in rules for quality assurance requirement – registrars are now required to undertake quality assurance activities towards the end of their training.

However, as in the past, the raw encounter data were weighted for GP age and sex, to ensure any minor discrepancies (though not statistically significant) in the age–sex distribution of the sample were dealt with. The raw encounter data were also weighted for the activity level of each participating GPs (as measured by the number of Medicare items claimed) to ensure each set of 100 encounter forms represents the relative contribution of each individual GP to the total encounters across the country. The final sample of GP–patient encounters demonstrated excellent precision in representing the age–sex distribution of patients at all Medicare-claimed A1 items of service.

The characteristics of the general practice profession continue to change. When compared with the GPs of 1998–99, GPs are getting older and a greater proportion is female. They are more likely to work 6–10 sessions and less likely to work longer hours. They are less likely to be in solo practice and more often work in relatively large practices and in computerised practices. They are less likely to have graduated in Australia but are more likely to hold Fellowship of the RACGP.

The distribution of the GPs' workload across patient age groups is also changing, a decreasing proportion of their encounters being with children aged less than 15 years and an increasing proportion being with older patients (particularly those aged 75 years or more), and with the 'baby boomers', now aged 45–64 years.

As in the past, the majority of patients present with only one reason for encounter (RFE), but there has been an increase in the rate of RFEs associated with a need for services such as prescriptions and referrals. More specifically, visits to obtain the results of tests and investigations have become more frequent. This may be the result of GP concerns about the changes in the Privacy Legislation released at the end of 2001 or may reflect increasing economic pressure on the profession as a whole, leading GPs to ask the patient to return for results rather than receive them over the telephone.

In light of the changing age distribution of the patients encountered, it is surprising there has not been any increase in the number of problems managed at the encounter. It has remained steady at 145 problems per 100 encounters. However, it is not surprising that there has been an increase in the management rate of chronic problems. One-third of the problems managed in general practice are now chronic in nature. At least one chronic problem was managed at 39% of encounters and they were managed at an average rate of 51 per 100 encounters.

The chronic problems managed most frequently in general practice are hypertension, depressive disorder, lipid disorders, diabetes, osteoarthritis, asthma and oesophageal disease. However, together these six chronic problems account for only 18% of all problems managed, demonstrating the very wide diversity of morbidity managed by GPs.

One in every five problems managed by GPs in Australia remains undiagnosed at the end of the consultation, the GPs describing the problem in terms of symptoms or complaints.

Acute conditions remain common reasons for seeing the GP. In 2004–05, upper respiratory tract infection (URTI) remained the second most common problem managed in general practice, a position it has held since problem management rates were first measured in the Australian Morbidity and Treatment Survey 1990–91. However, the management rate of URTI has significantly decreased since BEACH began, there now being an estimated 1.5 million fewer cases managed by GPs than in 1998–99. Other acute conditions being managed less often include acute bronchitis, sinusitis and tonsillitis.

In 2004–05 at least one management action was recorded by the GP for almost 90% of the problems managed. At least one medication was prescribed/supplied or advised (most commonly prescribed) for over half the problems managed. GPs used counselling and/or advice in the management of one in four problems and undertook procedure(s) for one in ten problems managed. Only about 10% of patients were referred elsewhere for their problem, and most of these referrals were to specialists. Ordering of tests and investigations was more likely than referral. For one in six problems the GP placed orders for tests, by far the majority being for pathology tests.

Some of these management activity patterns have altered since 1998–99. The total medication rate (prescribed, supplied and advised for over-the-counter purchase) decreased by about 7%. The decline has been greatest in the rate of prescriptions, which fell by almost 12% from 94 prescriptions per 100 encounters in 1998–99 to 83 per 100 in 2004–05. Although a 12% fall may not seem large, if we extrapolate this change to general practice across Australia it represents an average annual national decrease of 2.6 million prescriptions (i.e. there being an estimated 15.6 million fewer prescriptions given by GPs in 2004–05 than in 1998–99). It must also be remembered that this is a decrease in the number of occasions a prescription is written and does not consider the number of repeats involved or whether the prescription was filled. Considering the increased management rate of chronic conditions in general practice, this fall is even more important.

The decreasing prescription rate for medications was not consistent across all drug types. The largest decreases were seen in the prescribing of paracetamol and celecoxib. In contrast, tramadol was prescribed at an increasing rate, perhaps replacing some of the paracetamol and coxib scripts, and esomeprazole became more often prescribed than ranitidine in the management of acid-related disorders.

Clinical treatments (provision of advice and counselling) are on the increase in general practice. From BEACH we estimated GPs used such techniques on 5.4 million more occasions in 2004–05 than in 1998–99. Advice and counselling about nutrition/weight would account for about 1.5 million of these additional events. An increase in provision of psychological counselling was also found, but the change was smaller. We estimate that GPs provided psychological counselling at about 3 million consultations in 2004–05 and that this was about half a million more occasions than in 1998–99.

BEACH suggests that GPs undertook almost 15 million procedures across the country during 2004–05 and that this represents an increase of about 460,000 procedures per year since 1998 (i.e. an extra 2.8 million procedures in 2004–05 compared with 1998–99).

Pathology test ordering by GPs continues to increase, not only in total numbers, but also in terms of how often at least one pathology test is ordered. The proportion of encounters generating pathology test orders increased between 1998–99 and 2004–05 from 13% to 15% of encounters. This suggests there were 1.5 million more encounters at which the GP decided to order pathology tests in 2004–05 than in 1998–99. Further, the total number of pathology tests ordered increased (since 2000–01) by almost 25% from 29.7 to 36.7 per 100 encounters. Previous research has demonstrated that in the late 1990s an increase in pathology test

ordering was due not to increased likelihood of testing, but to increased numbers of tests ordered at any one time. It appears this is no longer the case; the data suggest a combination of these effects. In any case, the extrapolated effect of the increase suggests that GPs ordered 5.2 million more pathology tests in 2004–05 than they did in 2000–01. This increase was particularly apparent in ordering rates for chemical pathology and haematology.

There has also been an increase in the likelihood of GPs ordering imaging tests, but the change was far less than that for pathology. In 2004–05 GPs ordered imaging tests at a rate of 8.3 per 100 encounters. There was no significant change in overall referral rates, or in rates of referral to medical specialists, allied health professionals or hospital services.

Chapter 3 (red margin) investigates some selected topics in greater detail: non-steroidal anti-inflammatory drugs for arthritis and other musculoskeletal problems; anti-depressant medications and management of psychological problems; asthma inhalant medications and management of asthma; lipid-lowering agents and management of lipid disorders; injuries.

The investigation of the prescription, supply or advice for purchase of non-steroid anti-inflammatory drugs (NSAIDs) demonstrated that the NSAID medication rate peaked in 2000–01, largely due to the entry of the coxibs to the Pharmaceutical Benefits Scheme. There is evidence that some substitution for other NSAIDs was made at this time, but that the coxibs were also prescribed for many patients who were not already on a NSAID. Since 2000–01 the rate of NSAIDs has steadily decreased, particularly in the last 12 months, following withdrawal of rofecoxib. There has been some substitution of meloxicam.

Asthma is being less often managed in general practice than in the past. GPs continue to prescribe, supply or advise asthma preventives, and there was a decreasing rate of bronchodilator medications prescribed/supplied or advised. This pattern of medication use may indicate that patients are managing their asthma better than they were and requiring fewer visits to the GP for acute exacerbations.

Depression remained the fourth most common problem managed in general practice in 2004–05. Considering the large number of government initiatives in the areas of mental health it is somewhat surprising that there has been little change since 1998 in its management rate or in the rate of anti-depressant medication use for depression. However, selective serotonin reuptake inhibitors and serotonin-noradrenaline reuptake inhibitors have continued to increase as the medication of choice for the management of depression.

The management rate of lipid disorders continues to increase, suggesting an increasing prevalence of diagnosed cholesterolaemia in the Australian population. This is accompanied by a continued growth in prescriptions for lipid-lowering medications, particularly statins.

Physical injury is one of the National Health Priority Areas. For the first time we investigated the trend in physical injury management and found a significant decrease over time. However, this may merely suggest that patients are increasingly using other health professions (such as physiotherapists and hospital emergency departments) for first-line management for physical injuries.

The substudy of patient risk factors, combining smoking, BMI and alcohol intake, has been part of BEACH since 2000–01. In 2004–05 the proportion of adult respondents classed as obese (calculated on patient-reported height and weight) (22.4%) was similar to that of the previous year but remains significantly higher than in 2000–01 (20.2%). The proportion classed as overweight has remained steady over the period. The proportion of surveyed adults who reported at-risk alcohol consumption levels remained steady at about 26% since an initial increase in 2001–02. The prevalence of smoking among patients attending general practice and of overweight and obesity in children remained steady this year.