

General practice activity in Australia 1999–2000

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BEACH
***Bettering the Evaluation
and Care of Health***

**General practice activity
in Australia 1999–2000**

**Helena Britt, Graeme C Miller, Janice Charles, Stephanie Knox,
Geoffrey P Sayer, Lisa Valenti, Joan Henderson, Zoe Kelly**

December 2000

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Australian Institute of Health and Welfare

Board Chair

Professor Janice Reid

Director

Dr Richard Madden

Any enquiries about or comments on this publication should be directed to:

General Practice Statistics and Classification Unit

The University of Sydney

Acacia House

Westmead Hospital

WESTMEAD NSW 2145

Phone: 61 2 9845 8151

Fax: 61 2 9845 8155

Email: gpscufmrc.org.au

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Foreword

This publication is the second annual report of the national BEACH survey of general practice activity. The BEACH survey is the product of the collaboration between AIHW and the Family Medicine Research Centre at the University of Sydney, and I want to thank Associate Professor Helena Britt and all her colleagues for their great contribution to Australia's national health information.

I also want to thank all the public and private funders of the BEACH survey for supporting this vital work to understand the nature of general practice in Australia, and the demands placed on general practitioners, and how GPs respond to these demands.

The publication provides a wealth of information on the characteristics of patients who see general practitioners, on the problems managed at general practitioner-patient encounters and on the range of management techniques adopted by general practitioners. It is published well within 12 months of the end of the data collection period to which it refers, making it additionally relevant to a wide range of users.

The BEACH program is currently collecting data in its third data collection year. With the publication of this second annual report, the program is making an increasingly important contribution to the national health information landscape. The collection provides the only routinely collected data on many aspects of the 100 million Medicare billed general practice encounters in Australia each year. In addition, as the collection grows, characteristics of relatively rare events (such as referrals to hospitals) are now becoming amenable to analysis and will become more so over the next couple of years.

The collection continues to evolve in response to user needs, and this report includes commentary on the effects of changes in the data collection form for the second year of the collection. Some of the changes apparently resulted in lower response rates for some questions, so this will be taken into account in revisions to be made to the forms for the fourth data collection year. The timely and flexible nature of the data collection allows such refinements to be made with relative ease.

This year, the report includes some of the data collected at subsets of general practitioner-patient encounters on aspects of patient health status not collected as data on the encounter. Thus information is presented on the wellbeing, body weight to height ratio, smoking status and alcohol use of subsamples of patients.

The report also includes commentary on possible future collection of summary data on general practice from electronic health records. This is an exciting prospect that will be shaped over the years to come, with developments in thinking about 'event summaries' and about 'minimum data sets' and standardisation of nomenclature, classification and coding systems for general practice. These developments are likely to draw heavily on the BEACH experience.

Richard Madden
Director
Australian Institute of Health and Welfare
December 2000

Contents

Foreword	v
List of tables	x
List of figures	xii
Summary	xiii
Acknowledgments	xvii
1 Introduction	1
1.1 Aims.....	3
2 Methods	4
2.1 The sample frame.....	4
2.2 Sampling methods	4
2.3 Recruitment methods.....	5
2.4 Data elements.....	5
2.5 The BEACH relational database.....	7
2.6 Statistical methods.....	8
2.7 Classification of data.....	8
2.8 Validity and reliability	10
3 The general practitioners	11
3.1 Results of recruitment.....	11
3.2 The participating GPs	11
3.3 Comparison between participating and non-participating GPs.....	13
4 Representativeness	15
4.1 Comparison of BEACH GPs with the national GP population.....	15
4.2 Comparison of BEACH consultations with all GP consultations in Australia	17
4.3 Sample weights	17
4.4 The weighted dataset.....	19
5 The encounters	20
5.1 Overview of the dataset.....	20
5.2 Encounter type	21

6 The patients	23
6.1 Patient characteristics	23
6.2 Patient reasons for encounter.....	25
6.3 The inter-relationship of RFEs with other variables. Example: abdominal pain.....	30
7 Problems managed.....	33
7.1 Number of problems managed at encounter	33
7.2 Nature of morbidity.....	34
7.3 The inter-relationship of problems managed with other variables.....	40
8 Overview of management	47
9 Medications.....	49
9.1 Source of medications	49
9.2 The inter-relationship of medications with other variables.....	50
9.3 Prescribed medications	57
9.4 Medications advised for over-the-counter purchase.....	69
9.5 Medications supplied by general practitioners	70
10 Non-pharmacological management.....	73
10.1 Clinical treatments	73
10.2 Procedural treatments.....	78
11 Referrals and admissions.....	80
11.1 Number of referrals and admissions.....	80
11.2 Most frequent referrals.....	81
11.3 Problems that were referred.....	82
11.4 The inter-relationship of referrals with other variables. Example: referrals to a surgeon.....	84
12 Investigations.....	87
12.1 Pathology ordering.....	87
12.2 Imaging ordering.....	93

13 Patient wellbeing and risk factors	98
13.1 Background	98
13.2 Methods	98
13.3 Wellbeing	99
13.4 Body mass	100
13.5 Smoking	102
13.6 Alcohol use	103
14 Discussion	106
14.1	Methodological issues
14.2 Data collection from electronic health records	109
14.3 Comparing BEACH data with those from other sources	110
15 Conclusion.....	113
15.1 Current status of BEACH.....	114
15.2 Access to the BEACH data.....	114
Appendix 1 Example of a recording form	117
Appendix 2 GP characteristics questionnaire	119
Appendix 3 Reasons for encounter and problems managed—code groups from ICPC-2 and ICPC-2 PLUS.....	121
Appendix 4 Clinical treatment—code groups from ICPC-2 PLUS.....	125
Appendix 5 Procedural treatment code groups from ICPC-2 PLUS.....	130
Appendix 6 Referrals—code groups from ICPC-2 and ICPC-2 PLUS	132
Appendix 7 Pathology test orders—code groups from ICPC-2 and ICPC-2 PLUS...	133
Appendix 8 Imaging test orders—code groups from ICPC-2 and ICPC-2 PLUS.....	141
Glossary.....	144
Abbreviations.....	147
Bibliography.....	149

List of tables

Table 3.1:	Recruitment and participation rates.....	11
Table 3.2:	Characteristics of participating GPs.....	12
Table 3.3:	Comparison of characteristics of participating and non-participating GPs ^(a)	14
Table 4.1:	Comparison of BEACH participants and all active recognised GPs in Australia.....	16
Table 4.2:	Comparisons of BEACH with age–sex distribution of patients at A1 services from the MBS.....	18
Table 4.3:	The BEACH dataset.....	19
Table 5.1:	Summary of morbidity and management.....	21
Table 5.2:	Type of encounter.....	22
Table 6.1:	Characteristics of the patients at encounters	25
Table 6.2:	Distribution of patient reasons for encounter by ICPC–2 chapter and most frequent individual reasons for encounter within chapter.....	27
Table 6.3:	Most frequent patient reasons for encounter.....	29
Table 7.1:	Number of problems managed at an encounter	34
Table 7.2:	Distribution of problems managed by ICPC–2 chapter and most frequent individual problems within chapter	35
Table 7.3:	Distribution of problems managed by ICPC–2 component.....	37
Table 7.4:	Most frequently managed problems.....	39
Table 8.1:	Summary of management	47
Table 8.2:	Encounters and problems in which treatments occurred.....	48
Table 9.1:	Distribution of medications prescribed by group, subgroup, generic medication.....	63
Table 9.2:	Most frequently prescribed medications	67
Table 9.3:	Distribution of medications prescribed by ATC medication group.....	68
Table 9.4:	Most frequently advised over-the-counter medications	70
Table 9.5:	Medications most frequently supplied by GPs.....	72
Table 10.1:	Non-pharmacological treatments—summary table.....	73
Table 10.2:	Most frequent clinical treatments.....	74
Table 10.3:	The ten most common problems managed with a clinical treatment.....	75
Table 10.4:	Most frequent procedural treatments.....	79
Table 10.5:	The ten most common problems managed with a procedural treatment.....	79
Table 11.1:	Referrals and admissions—summary table.....	80
Table 11.2:	The most frequent referrals to specialists and allied health professionals.....	81

Table 11.3:	The ten most common problems referred to a specialist	83
Table 11.4:	The ten most common problems referred to allied health services	83
Table 11.5:	The ten most common problems referred to hospital	84
Table 12.1:	Number of encounters and problems generating an order for a pathology or imaging test.....	87
Table 12.2:	Distribution of pathology orders across pathology groups and most frequent individual test orders within groups.....	88
Table 12.3:	The ten most common problems for which a pathology test ordered.....	90
Table 12.4:	Most frequent imaging tests ordered.....	94
Table 12.5:	The ten most common problems for which an imaging test ordered	95

List of figures

Figure 2.1: The BEACH relational database	7
Figure 6.1: Age–sex distribution of patients at encounter	23
Figure 6.2: Inter-relationship of RFEs with other variables. Example: abdominal pain	31
Figure 7.1: Inter-relationship of a problem managed with other variables. Example: URTI	42
Figure 7.2: Inter-relationship of a problem managed with other variables. Example: malignant skin neoplasm	44
Figure 7.3: Inter-relationship of a problem managed with other variables. Example: asthma	46
Figure 9.1: Percentage of medications prescribed, advised and supplied by GP	49
Figure 9.2: Inter-relationship of medications with other variables. Example: lipid-lowering medications	52
Figure 9.3: Inter-relationship of medications with other variables. Example: benzodiazepines	54
Figure 9.4: Inter-relationship of medications with other variables. Example: antisecretory agents	56
Figure 9.5: Number of medications prescribed per encounter	57
Figure 9.6: Number of medications prescribed per problem	58
Figure 9.7: Number of repeats ordered per prescription	59
Figure 9.8: Age–sex-specific prescription rates per 100 encounters	60
Figure 9.9: Age–sex-specific prescription rates per 100 problems	61
Figure 9.10: Distribution of prescribed medications by major groups	61
Figure 9.11: Advised medications by major groups	69
Figure 9.12: GP-supplied medications by major group	71
Figure 10.1: Inter-relationship of counselling with other variables. Example: counselling and advice for smoking	77
Figure 11.1: Inter-relationship of referrals with other variables. Example: referral to a surgeon	86
Figure 12.1: Inter-relationship of pathology orders with other variables. Example: thyroid function test order	92
Figure 12.2: Inter-relationship of imaging orders with other variables. Example: plain spinal x-ray	97
Figure 13.1: Age specific rates of general health	99
Figure 13.2: Age–sex-specific rates of overweight and obese	101
Figure 13.3: Age–sex-specific rate of underweight	101
Figure 13.4: Male age–specific rates—smoking status	102
Figure 13.5: Female age–specific rates—smoking status	103
Figure 13.6: Age–sex-specific rates for at-risk alcohol use: BEACH 1999–2000	104
Figure 13.7 Age–sex-specific rates for at-risk alcohol use: BEACH 1998–1999	105

Summary

This report details findings from the second year of the BEACH (Bettering the Evaluation and Care of Health) program, a study of general practice activity in Australia. It describes the results of the second year of the program, from April 1999 – March 2000. BEACH provides data users with up-to-date information about a sample of more than 100,000 encounters between general practitioners (GPs) and patients, from a random sample of about 1,000 GPs per year.

A random sample of GPs who have claimed at least 375 general practice Medicare items of service in the previous three months is regularly drawn from the Health Insurance Commission data by the General Practice Branch of the Department of Health and Aged Care. GPs are approached first by letter and then followed-up by telephone recruitment. Each participating GP completes details about 100 consecutive patient encounters on structured paper encounter forms. Each also provides information about themselves and their practice.

In the 1999–2000 BEACH data year a random sample of 1,047 GPs took part, providing data pertaining to 104,700 encounters. Results are reported in terms of GP and patient characteristics, patient reasons for encounter, problems managed, medications and other treatments provided, referrals and tests ordered. Questions about patient health status and selected risk factors were asked of subsample of patients and the results are included in this publication. Other subsample topics will be reported elsewhere.

The general practitioners

Males made up 69.6% of participants and GPs aged 45 years or older accounted for 59.1%. One in five participants was in solo practice and 26.7% had graduated in a country other than Australia. Almost one-third were Fellows of the Royal Australian College of General Practitioners (RACGP) and a further 2.2% were currently in the Training Program.

A comparison of characteristics of participating GPs (39.1% of those with whom contact was established) with those of the GPs from the random sample who declined to participate, found no significant differences between the groups 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 each GP to improve the national estimates.

The encounters

After post-stratification weighting for age (stratified by sex) and for activity level, there were 104,856 encounters (weighted) included in the analysis. The majority were direct encounters (patient seen), though 3.3% were indirect (patient not seen). By far the majority (93%) of encounters were claimable from Medicare and almost 90% of these were in the surgery. The encounters involved 155,690 reasons for encounter, 153,857 problems managed and 115,432 medications, 48,194 non-pharmacological treatments, 11,760 referrals, 27,613 pathology test orders and 7,841 orders for imaging.

The patients

The age distribution of patients at encounter showed that 14.8% of encounters were with children, 10.4% with young adults, about 25% with patients aged 25–44 years, a further 25% with those aged 45–64 years and 25% with elderly patients. The patient was female at 57.3% of encounters, held a health care card at 38.6% and came from a non-English-speaking background at 8.0% of encounters. At small number of encounters (0.7%) the patient identified themselves as Aboriginal people or Torres Strait Islanders.

Up to three reasons for encounter (RFEs) could be recorded at each consultation and patient RFEs were recorded at a rate of 148.5 per 100 encounters. More than half related to the respiratory, musculoskeletal, skin, circulatory and digestive systems. Requests for a prescription, followed by a request for a check-up were the most common RFEs, followed by a request for immunisation/vaccination. The remainder of the top ten RFEs were largely symptomatic in nature and included coughs and colds, back complaints, fever, rash and headaches.

Problems managed

Doctors could record up to four problems at each encounter. Problems were managed at a rate of 147 per 100 encounters. At 65.4% of encounters only one problem was recorded.

Problems related to the respiratory system, the skin, the musculoskeletal and circulatory systems accounted for just over half of all problems managed. The most common individual problems were hypertension (8.4 per 100 encounters), upper respiratory tract infection (URTI) (7.2 per 100), immunisation/vaccination (4.6 per 100) and depression (3.4 per 100).

Treatments

Medications

Participants could record up to four medications for each problem. Medications were recorded at a rate of 110 per 100 encounters, or at a rate of 75 per 100 problems. These medications could be prescribed (85.2% of all medications), advised for over-the-counter purchase (8.5%), or supplied by the GP (6.3%).

Prescribed medications

Medications were prescribed at a rate of 93.8 per 100 encounters, at least one being prescribed at 60% of encounters and for 50.5% of problems managed. Medication groups most frequently prescribed were antibiotics, cardiovascular, and central nervous system medications. The most commonly prescribed individual medications were paracetamol, (4.3% of all prescriptions), amoxicillin (3.3%) and the paracetamol/codeine combination (2.6%).

Non-pharmacological treatments

Up to two non-pharmacological treatments could be recorded per problem. These treatments were classified into two groups, clinical and procedural. At least one non-pharmacological treatment was provided at over one-third of all encounters (36.2 per 100 encounters). Clinical treatments (33.5 per 100 encounters) were provided more frequently than procedures (12.5 per 100). Advice and education about the treatment of a problem (6.2 per 100 encounters) was the most common clinical treatment. The most frequent procedure was excision or removal of tissue (3.0 per 100 encounters).

Referrals, admissions and investigations

One or two new referrals could be recorded for each problem and at least one was given at 10.4% 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).

Pathology tests were ordered at a rate of 26.3 per 100 encounters, at least one being placed at 13.8% of encounters. While blood chemistry accounted for almost half of all pathology tests ordered, the most commonly ordered individual test was a full blood count. Imaging was ordered at a rate of 7.5 per 100 encounters, at least one order being placed at 6.7% of encounters. Plain x-rays accounted for two-thirds of these, a plain chest x-ray being the most common.

Patient wellbeing and risk factors

Patient wellbeing

Responses were recorded at 37,444 patient encounters from 1,047 GPs. The distributions of self-rated general health for males and females were comparable. In adult patients aged 18 years and over (N=31,722), 13.7% of respondents rated their health as excellent, while 18.4% rated it fair and 6.0% rated it as poor. The proportion of patients rating their health as excellent decreased steadily with age.

Body mass

Responses were received at 38,660 patient encounters from 1,047 GPs. Of the 33,069 encounters with adults 19.4% were with people considered obese, 33.1% were with those considered overweight and 8.5% were with people considered underweight. A higher proportion of males were overweight or obese (59.0%) than females (48.1%).

Smoking

Responses were received at 32,483 patient encounters with adult patients from 1,044 GPs. Overall, 18.9% of encounters were with daily smokers, 5.2% were with occasional smokers and 27.1% with previous smokers. A greater proportion of males (23.4%) than females (16.2%) reported smoking daily.

Alcohol use

Responses were received at 32,908 patient encounters with adult patients from 1,045 GPs. 'At-risk' levels of alcohol intake were reported by 24.2% of patients encountered. Male patients had a higher rate of at-risk drinkers (30.3%) than women (20.1%). The proportion of patients of both sexes who were at-risk drinkers decreased with age.

Discussion

This report has provided an up-to-date description of general practice clinical activity in Australia in the 1999–2000 period. The results have raised some methodological issues that are discussed. The recent promotion by many people of the concept of gathering National data passively from electronic health records is also discussed in terms of the future development of the BEACH program.

For readers who wish to compare the BEACH data with that from the Health Insurance Commission, some of the differences between the two data sets are highlighted to ensure correct interpretation of similarity or differences in results.

Conclusion

This report provides researchers, government and industry with up-to-date information about the recent clinical activities of general practice. It describes the normative behaviour of over 1,000 GPs who together have more than 10,000 years clinical experience. It demonstrates the wide range of problems dealt with in general practice. Further it gives an indication of the enormous potential of the database to answer questions about the

majority of the population who visit a GP each year and how 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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