

**Patient-based substudies from BEACH:
abstracts and research tools
1999–2006**

Australian GP Statistics and Classification Centre

The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is *better information and statistics for better health and wellbeing*.

The Australian General Practice Statistics and Classification Centre (previously Unit) is a collaborating unit of the Australian Institute of Health and Welfare and the University of Sydney, situated within the Family Medicine Research Centre at Westmead Hospital. It fulfils the obligation of the Australian Institute of Health and Welfare to collect statistics regarding general practitioners, their patients and their patients' care.

Contributors

Other members of the BEACH research team who have contributed extensively to the research reported in this document:

Janice Charles

Julie O'Halloran

Salma Fahridin

Ying Pan

Christopher P Harrison

Lisa Valenti

Stephanie Knox

The contribution to the reported research made by past members of the BEACH team is also acknowledged:

Anthea Ng (SAND substudies 2003–2005)

Brynley Hull (SAND substudies 1999–2000)

Matt Hou (SAND substudies 2000–2003)

Kevin McGeechan (SAND substudies 1999–2000)

Zoe Kelly (SAND substudies 1999–2001)

Geoffrey P Sayer (SAND substudies 1999–2000)

Alice Bhasale (SAND substudies 1999–2000)

Sharon Scahill (SAND substudies 1999–2000)

Fiona Horn (SAND substudies 1999–2000)

Recent related publications

Britt H, Miller GC, Charles J, Pan Y, Valenti L, Henderson J, Bayram C, O'Halloran J, Knox S 2007. General practice activity in Australia 2005–06. General practice series no. 19. AIHW cat. no. GEP 19. Canberra: Australian Institute of Health and Welfare.

Britt H, Miller GC, Knox S, Charles J, Pan Y, Henderson J, Bayram C, Valenti L, Ng A, O'Halloran J 2005. General practice activity in Australia 2004–05. General practice series no. 18. AIHW cat. no. GEP 18. Canberra: Australian Institute of Health and Welfare.

Knox S, Britt H, Pan Y, Miller GC, Bayram C, Valenti L, Charles J, Henderson J, Ng A, O'Halloran J 2005. Locality matters: the influence of geography on general practice activity in Australia 1998–2004. General practice series no. 17. AIHW cat. no. GEP 17. Canberra: Australian Institute of Health and Welfare.

Britt H, Miller GC, Knox S, Charles J, Valenti L, Pan Y, Henderson J, Bayram C, O'Halloran J, Ng A 2004. General practice activity in Australia 2003–04. General practice series no. 16. AIHW cat. no. GEP 16. Canberra: Australian Institute of Health and Welfare.

Please note that as with all statistical reports there is the potential for minor revisions of data in this report over its life. Please refer to the online version at <www.aihw.gov.au>.

GENERAL PRACTICE SERIES

Number 20

BEACH

Bettering the Evaluation And Care of Health

Patient-based substudies from BEACH: abstracts and research tools 1999–2006

Australian GP Statistics and Classification Centre

Helena Britt, Graeme C Miller, Joan Henderson, Clare Bayram

July 2007

A joint report by the University of Sydney and the Australian Institute of Health and Welfare

AIHW cat. no. GEP 20

© Australian Institute of Health and Welfare and the University of Sydney 2007

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head, Business Promotion and Media Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

This publication is part of the Australian Institute of Health and Welfare's General Practice Series, from the Australian General Practice Statistics and Classification Centre, a collaborating unit of the University of Sydney and the Australian Institute of Health and Welfare. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISSN 1442-3022

ISBN 978 1 74024 704 7

Suggested citation

Britt H, Miller GC, Henderson J, Bayram C 2007. Patient-based substudies from BEACH: abstracts and research tools 1999–2006. General practice series no. 20. AIHW cat. no. GEP 20. Canberra: Australian Institute of Health and Welfare.

Keywords: Australia, Delivery of Health Care/statistics & numerical data, Epidemiology/instrumentation, Family Practice/statistics & numerical data, Health Care Surveys/methods, Incidence, Prevalence, Questionnaires.

Australian Institute of Health and Welfare

Board Chair

Hon. Peter Collins, AM, QC

Director

Penny Allbon

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

The Australian General Practice Statistics and Classification Centre
University of Sydney
Acacia House
Westmead Hospital
Westmead NSW 2145
Phone: 61 2 9845 8151
Fax: 61 2 9845 8155
Email: gpstats@fmrc.org.au

Published by the Australian Institute of Health and Welfare

Foreword

General practice remains the cornerstone of Australia's health service. One has only to look at countries that do not have general practice or something similar, to see what a shambles follows. One of the troubling features about health care in the US is that primary care is often provided by specialists, at specialist rates and with concomitant use of special investigations. At the other end of socioeconomic spectrum, sub-Saharan African countries struggle to dispense medication for HIV and malaria because of a lack of primary care capacity.

Given the importance of general practice, then, it is refreshing to read the following studies that have emerged from the productive collaboration of the investigators with general practitioners in Australia. Many pharmaceutical companies, health departments and other interest groups have supported the studies. The sheer diversity of sponsorship, combined with the constancy of the research methods, diminishes the risk of biased results.

The BEACH substudies presented in this report address many aspects of health and health care of patients attending general practice. The data gathering has been appropriately parsimonious and economical of practitioners' time, but within those constraints information is remarkably rich. Whether the point in question is asthma (study 104) or cultural background of patients attending general practice (study 95), each study summary provides clear, concise and helpful insights on which we may base strategies for assisting general practitioners the better to care for their patients or to do other things in the health service that could assist them and their patients. I defy anyone to pick up this volume and find a boring study!

The investigators who have conducted these studies deserve a sustained round of applause. Research of this sort requires strength of vision and great good will. Any research program that has run for over 10 years is truly astonishing and deserves an award for longevity. I also applaud the generosity of the sponsors and research team in making the tested research implements freely available. It is interesting to observe the growth in precision, focus and feasibility that has occurred over the two decades since their first national study in 1990-91

I saw BEACH when it began and it has matured wonderfully. I congratulate the research workers and commend this fine report to all who have an interest in general practice in Australia.

Stephen Leeder AO, MD, PhD, BSc (Med), FRACP, FAFPHM, FFPH(UK)
Professor of Public Health and Community Medicine
Director, Australian Health Policy Institute
University of Sydney

Acknowledgments

The Australian General Practice Statistics and Classification Centre (formerly the General Practice Statistics and Classification Unit) wishes to thank the general practitioners who participated in BEACH between April 1999 and December 2006, the period covered by the abstracts in this report. Over this period there were approximately 8,500 participants, representing about 7,000 individual general practitioners. This publication would not have been possible without their valued cooperation and effort in providing the data.

We also thank the following organisations for their financial support and their contribution to the ongoing development of the BEACH program since it began in April 1998:

- AstraZeneca Pty Ltd (Australia) (1998–2006)
- Roche Products Pty Ltd (1998–2006)
- Janssen-Cilag Pty Ltd (2000–2006)
- Merck, Sharp and Dohme (Australia) Pty Ltd (2002–2006)
- Pfizer Australia (2003–2006)
- National Prescribing Service (2005–2006)
- Abbott Australasia (2006)
- Sanofi-Aventis Australia Pty Ltd (2006)
- Australian Government Department of Health and Ageing (1998–2004)
- National Occupational Health and Safety Commission (1998–2000)
- Australian Government Department of Veterans' Affairs (1998–2000)
- Aventis Pharma Pty Ltd (1998–2002).

Some financial support for the program was also provided by:

- Australian Government Department of Veterans' Affairs (2004–2006).
- The Office of the Australian Safety and Compensation Council, Department of Employment and Workplace Relations (2004–2006).

We acknowledge the support of the Royal Australian College of General Practitioners, the Australian Medical Association, the Australian Divisions of General Practice, the Australian College of Rural and Remote Medicine, and the Consumers Health Forum, and the contribution of their representatives to the BEACH Advisory Board.

The authors are grateful to all members of the BEACH team, both past and present, whose work has contributed to the research reported here and whose names are listed in the front of this report. We are grateful for the editing and coordination of this report by Clare Bayram and the IT support of Timothy Chambers and the administrative support of Gervaise Woods. We also recognise the general practitioner recruitment staff (particularly Errol Henderson and Jan Fitzgerald), and data entry staff.

We appreciate the cooperation of the Primary Care Division of the Australian Government Department of Health and Ageing in regularly supplying general practitioner random samples and national Medicare data.

Ethics approval for the BEACH study was obtained by the Human Ethics Committee of the University of Sydney and the Ethics Committee of the Australian Institute of Health and Welfare. Ethics approval for all the substudies reported here was obtained from the Ethics Committee of the Australian Institute of Health and Welfare, on behalf of the Institute and the University of Sydney.

Contents

Foreword	v
Acknowledgments.....	vi
1 Introduction.....	1
1.1 Using this publication	3
1.2 Interpreting the prevalence estimates	4
1.3 Background	5
SAND substudies	5
2 Methods	8
2.1 BEACH	8
2.2 SAND – Supplementary Analysis of Nominated Data	9
The development of the tools for SAND substudies	9
Statistical methods	11
Classification of data	12
3 Lessons learnt.....	13
3.1 Rules of thumb in SAND tool design.....	13
3.2 Methodological issues	19
4 SAND substudies conducted continually since April 2000	20
4.1 Body mass index of adults	20
4.2 Body mass index of children	21
4.3 Smoking.....	21
4.4 Alcohol consumption	22
4.5 Length of consultation.....	23
5 Abstracts and research tools.....	28
1 Allergic rhinitis.....	28
2 Anxiety/stress, consultation time, level of education	30
3 Asthma.....	32
4 Cardiovascular disease.....	35
5 Depression.....	37
6 Employment status and workers' compensation claims.....	39
7 Health service utilisation, lifestyle status and chronicity.....	41
8 Hormone replacement therapy (HRT).....	43
9 Influenza and absenteeism	45
10 Length of consultation; after-hours arrangements; co-morbidity	47
11 Patient employment status and occupation	50
12 Smoking & passive smoking in general practice patients.....	52

13	Perceived stress	54
14	Co-medications.....	57
15	Lipid lowering medication	59
16	Effect of day and time of GP visit on billing method.....	61
17	Private prescription products.....	63
18	Drugs for the treatment of peptic ulcer and reflux	65
19	Osteoporosis	67
20	Screening and management of blood cholesterol.....	70
21	Diabetes – prevalence, management and screening	72
22	Asthma – prevalence, severity and management.....	75
23	Depression.....	78
24	Gastro-oesophageal reflux disease (GORD) in general practice patients	80
25	Prevalence of diabetes, medications and control	82
26	Prevalence of diagnosed hypertension and difficulties in treatment	84
27	Prevalence and management of influenza	86
28	Prevalence of Alzheimer’s disease and dementia	89
29	Non-steroidal anti-inflammatory drugs (NSAIDs) and acid suppressant use	92
30	Lipid lowering medications and coronary heart disease	94
31	Prevalence and severity of chronic heart failure	96
32	Patient use of after-hours medical services	98
33	Prevalence and management of cardiovascular risk factors.....	100
34	Gastro-oesophageal reflux disease (GORD).....	102
35	Smoking status of adults and their attempts to quit.....	104
36	Patient use of complementary therapies.....	107
37	Prevalence of common morbidities in patients encountered in general practice	109
38	Prevalence of chronic heart failure, management and control.....	111
39	Severity of asthma, medications and management.....	113
40	Type 2 diabetes mellitus, prevalence and management.....	116
41	Time of visit and billing status.....	118
42	Prevalence and management of chronic pain.....	120
43	Initiation and purpose of pathology orders	122
44	Severity of illness	124
45	Diabetes mellitus prevalence, management and risk factors.....	126
46	Coronary heart disease, risk factors and lipid lowering medication.....	128
47	Management of depression and anxiety	130
48	Asthma prevalence and management.....	132
49	Health status and management of patients on non-steroidal anti-inflammatory drugs	135
50	Risk factors of patients on lipid lowering medications [<i>interim report</i>]... See Abstract 67	

51	Use of proton pump inhibitors for gastrointestinal problems.....	138
52	Language and cultural background of patients.....	140
53	Smoking status of adults and their attempts to quit.....	142
54	Secondary prevention of heart attack or stroke.....	145
55	Patient weight, perception of weight and weight loss.....	147
56	Prevalence, cause and severity of adverse pharmacological events.....	150
57	Prevalence and management of chronic heart failure in general practice patients	152
58	Lipid lowering medications: patient eligibility under the PBS	154
59	Hypertension management and control in general practice patients	156
60	Prevalence of GORD and associated proton pump inhibitor use.....	158
61	Prevalence of chronic illnesses identified as National Health Priority Areas among general practice patients	160
62	Use of proton pump inhibitors by general practice patients	162
63	Asthma – prevalence, management and medication side-effects	164
64	Current use of statins by general practice patients	167
65	Language and cultural background of general practice patients.....	169
66	Anti-psychotic medication use by general practice patients	171
67	Risk factors of patients on lipid lowering medications	173
68	Patient weight, perception of weight and weight loss in adults	175
69	Patient weight, methods and medications tried for weight loss in adults	178
70	Inhaled corticosteroid use for asthma management.....	181
71	Patient BMI, morbidity and medication use in adults.....	184
72	Contraception use among female general practice patients aged 16–44 years	186
73	Warfarin use in patients with qualifying morbidity	188
74	Smoking and passive smoking in the home.....	190
75	Prevalence, management and investigations for chronic heart failure	192
76	Patients with risk factors for metabolic syndrome.....	194
77	Heart failure – underlying causes and medication management	196
78	NSAID & acid suppressant use in general practice patients	198
79	Hypertension and dyslipidaemia – comorbidity and management in general practice patients	200
80	Employment status and workers compensation claims in general practice patients	202
81	Prevalence and indications for gabapentin use by patients attending general practice.....	205
82	Prevalence and management of chronic pain	207
83	Prevalence and management of migraine	210
84	Menopausal status, symptoms and treatment of women aged 18 and over	212

85	Management of osteoporotic fractures in general practice patients.....	215
86	Diabetes Types 1 and 2 and coronary heart disease	217
87	Management of cardiovascular or diabetes related conditions.....	219
88	Arthritis rates and NSAID use in general practice patients.....	221
89	Estimates of the prevalence of chronic illnesses identified as Health Priority Areas among patients attending general practice	223
90	Prevalence, management and investigations for chronic heart failure in general practice patients	225
91	Prevalence and management of gastrointestinal symptoms	227
92	Prevalence of metabolic syndrome.....	229
93	Sexual dysfunction – premature ejaculation.....	231
94	Type 2 diabetes – investigations and related conditions.....	234
95	Cultural background of patients attending general practice.....	236
96	Inhaled corticosteroid use for asthma management.....	238
97	Statin medication use among high CHD risk patients attending general practice ...	241
98	Management of hypertension and angina in general practice patients	243
99	Lipid management in patients with high risk conditions	245
100	Gastrointestinal symptoms in patients attending general practice	247
101	Types of medicine use and patient use of medicines list	250
102	Alzheimer’s disease or dementia in patients attending general practice	252
103	Cardiovascular risk in patients attending general practice	254
104	Asthma management and medication use among patients attending general practice.....	256
	Reference list.....	258
	Glossary.....	261
	Abbreviations.....	263
	Subject bibliography	264