

References

1. Britt H, Miller GC, Charles J, Henderson J, Bayram C, Valenti L et al. 2009. General practice activity in Australia 1999–00 to 2008–09: 10 year data tables. General practice series no. 26. Cat. no. GEP 26. Canberra: Australian Institute of Health and Welfare.
2. Australian Government Department of Health and Ageing 2009. Medicare statistics, March quarter 2009, Group B tables. Canberra: DoHA. Viewed 24 August 2009, <www.health.gov.au/internet/main/publishing.nsf/Content/medstat-mar09-tables-b>.
3. Britt H, Miller GC, Charles J, Henderson J, Bayram C, Harrison C et al. 2008. General practice activity in Australia 2007–08. General practice series no. 22. Cat. no. GEP 22. Canberra: Australian Institute of Health and Welfare.
4. Knox SA, Harrison CM, Britt HC, Henderson JV 2008. Estimating prevalence of common chronic morbidities in Australia. *Med J Aust* 189(2):66-70.
5. Bindman AB, Forrest CB, Britt H, Crampton P, Majeed A 2007. Diagnostic scope of and exposure to primary care physicians in Australia, New Zealand, and the United States: cross sectional analysis of results from three national surveys. *BMJ* 334(7606):1261.
6. Australian Bureau of Statistics 2009. Australian demographic statistics, Dec 2008. Cat. no. 3101.0. Canberra: ABS. Viewed 24 August 2009, <www.abs.gov.au/AUSSTATS/abs@.nsf/productsbyCatalogue/6949409DC8B8FB92CA256BC60001B3D1?OpenDocument>.
7. Australian Institute of Health and Welfare 2008. Health expenditure Australia 2006–07. Health and welfare expenditure series no. 35. Cat. no. HWE 42. Canberra: AIHW.
8. Australian Institute of Health and Welfare 2008. Medical labour force 2006. National health labour force series no. 41. Cat. no. HWL 42. Canberra: AIHW.
9. Meza RA, Angelis M, Britt H, Miles DA, Seneta E, Bridges-Webb C 1995. Development of sample size models for national general practice surveys. *Aust J Public Health* 19(1):34-40.
10. Robertson J, Fryer JL, O'Connell DL, Smith AJ, Henry DA 2002. Limitations of Health Insurance Commission (HIC) data for deriving prescribing indicators. *Med J Aust* 176(9):149-424.
11. Wilkinson D, McElroy H, Beilby J, Mott K, Price K, Morey S et al. 2002. Characteristics of general practitioners that provided health assessments, care plans or case conferences, as part of the enhanced primary care program. *Aust Health Rev* 25(6):121.
12. Australian Association of Pathology Practices Inc 2008. An analysis of pathology test use in Australia. Canberra: AAPP. Viewed 9 December 2008, <www.aapp.asn.au/c3/PAPERS+POLICIES.aspx>.
13. Britt H, Miller GC, Knox S 2001. Imaging orders by general practitioners in Australia 1999–00. General Practice Series No 7. Cat. no. GEP 7. Canberra: Australian Institute of Health and Welfare.
14. Australian Bureau of Statistics 2009. National Health Survey: summary of results, 2007-08. Cat. no. 4364.0. Canberra: ABS.

15. Kerry SM & Bland JM 1998. Sample size in cluster randomisation. *BMJ* 316(7130):549.
16. Slymen DJ & Hovell MF 1997. Cluster versus individual randomization in adolescent tobacco and alcohol studies: illustrations for design decisions. *Int J Epidemiol* 26(4):765-771.
17. Cosby RH, Howard M, Kaczorowski J, Willan AR, Sellors JW 2003. Randomizing patients by family practice: sample size estimation, intracluster correlation and data analysis. *Fam Pract* 20(1):77-82.
18. Britt HC, Harrison CM, Miller GC, Knox SA 2008. Prevalence and patterns of multimorbidity in Australia. *Med J Aust* 189(2):72-77.
19. Sayer GP, Britt H, Horn F, Bhasale A, McGeechan K, Charles J et al. 2000. Measures of health and health care delivery in general practice in Australia. General Practice Series no. 3. Cat. no. GEP3. Canberra: Australian Institute of Health and Welfare.
20. 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. Cat. no. GEP 20. Canberra: Australian Institute of Health and Welfare.
21. Britt H, Miller GC, Charles J, Bayram C, Pan Y, Henderson J et al. 2008. General practice activity in Australia 2006–07. General practice series no. 21. Cat. no. GEP 21. Canberra: Australian Institute of Health and Welfare.
22. SAS proprietary software release 9.1. Cary: SAS Institute Inc, 2003.
23. Classification Committee of the World Organization of Family Doctors 1998. *ICPC-2: International Classification of Primary Care*. 2nd ed. Oxford: Oxford University Press.
24. World Health Organization 2004. Family of international classifications. Geneva: WHO. Viewed 4 September 2008, <www.who.int/classifications/en/WHOFICFamily.pdf>.
25. Australian Institute of Health and Welfare 2005. Australian family of health and related classifications matrix. Canberra: AIHW. Viewed 14 August 2008, <www.aihw.gov.au/datadevelopment/matrix/index.cfm>.
26. Britt H 1997. A new coding tool for computerised clinical systems in primary care--ICPC plus. *Aust Fam Physician* 26(Suppl 2):S79-S82.
27. Bridges-Webb C, Britt H, Miles DA, Neary S, Charles J, Traynor V 1992. Morbidity and treatment in general practice in Australia 1990-1991. *Med J Aust* 157(19 Oct Spec Sup):S1-S56.
28. O'Halloran J, Miller GC, Britt H 2004. Defining chronic conditions for primary care with ICPC-2. *Fam Pract* 21(4):381-386.
29. World Health Organization Collaborating Centre for Drug Statistics Methodology 1997. *Anatomical Therapeutic Chemical (ATC) classification index with Defined Daily Doses (DDDs)*. January 1998 ed. Oslo: WHO.
30. Britt H, Miller G, Bayram C 2007. The quality of data on general practice - a discussion of BEACH reliability and validity. *Aust Fam Physician* 36(1-2):36-40.
31. Driver B, Britt H, O'Toole B, Harris M, Bridges-Webb C, Neary S 1991. How representative are patients in general practice morbidity surveys? *Fam Pract* 8(3):261-268.
32. Britt H, Harris M, Driver B, Bridges-Webb C, O'Toole B, Neary S 1992. Reasons for encounter and diagnosed health problems: convergence between doctors and patients. *Fam Pract* 9(2):191-194.

33. Britt H 1998. Reliability of central coding of patient reasons for encounter in general practice, using the International Classification of Primary Care. *Journ Informatics in Prim Care* May:3-7.
34. Britt H 1997. A measure of the validity of the ICPC in the classification of reasons for encounter. *Journ Informatics in Prim Care* Nov:8-12.
35. Bentsen BG 1976. The accuracy of recording patient problems in family practice. *J Med Educ* 51(4):311-316.
36. Barsky AJ, III 1981. Hidden reasons some patients visit doctors. *Ann Intern Med* 94(4 pt 1):492-498.
37. Morrell DC, Gage HG, Robinson NA 1971. Symptoms in general practice. *J R Coll Gen Pract* 21(102):32-43.
38. Anderson JE 1980. Reliability of morbidity data in family practice. *J Fam Pract* 10(4):677-683.
39. Marsland DW, Wood M, Mayo F 1980. *Content of family practice*. New York: Appleton-Century-Crofts.
40. Bensing J 1983 The use of the RFE classification system in observation studies - some preliminary results. Presented at the The Tenth WONCA Conference on Family Medicine; 1983.
41. Howie JG 1972. Diagnosis--the Achilles heel? *J R Coll Gen Pract* 22(118):310-315.
42. Alderson M 1988. *Morbidity and health statistics*. 1 ed. Southampton: Stickton Press.
43. Crombie DL 1990. The problem of variability in general practitioner activities. In: *Yearbook of research and development*. London: Her Majesty's Stationary Office, 21-24.
44. Britt H, Bhasale A, Miles DA, Meza A, Sayer GP, Angelis M 1996. The sex of the general practitioner: a comparison of characteristics, patients, and medical conditions managed. *Med Care* 34(5):403-415.
45. Knottnerus JA 1991. Medical decision making by general practitioners and specialists. *Fam Pract* 8(4):305-307.
46. Britt H, Meza RA, Del Mar C 1996. Methodology of morbidity and treatment data collection in general practice in Australia: a comparison of two methods. *Fam Pract* 13(5):462-467.
47. Gehlbach SH 1979. Comparing methods of data collection in an academic ambulatory practice. *J Med Educ* 54(9):730-732.
48. Britt H, Angelis M, Harris E 1998. The reliability and validity of doctor-recorded morbidity data in active data collection systems. *Scand J Prim Health Care* 16(1):50-55.
49. Bayram C, Knox S, Miller G, Ng A, Britt H 2007. Clinical activity of overseas-trained doctors practising in general practice in Australia. *Aust Health Rev* 31(3):440-448.
50. Charles J, Britt H, Valenti L 2006. The independent effect of age of general practitioner on clinical practice. *Med J Aust* 185(2):105-109.
51. Henderson J, Britt H, Miller G 2006. Extent and utilisation of computerisation in Australian general practice. *Med J Aust* 185(2):84-87.
52. Henderson J 2007 The effect of computerisation on the quality of care in Australian general practice. PhD, University of Sydney.

53. Britt HC, Valenti L, Miller GC 2005. Determinants of consultation length in Australian general practice. *Med J Aust* 183(2):68-71.
54. Britt H & Harrison C 2009. GP clinical activity. In: Britt H, Miller GC (eds). *General practice in Australia, health priorities and policies 1998 to 2008*. General practice series no. 24. Cat. no. GEP 24. Canberra: Australian Institute of Health and Welfare, 38-56.
55. McWhinney IR 1986. Are we on the brink of a major transformation of clinical method? *CMAJ* 135(8):873-878.
56. World Health Organization Collaborating Centre for Drug Statistics Methodology 2009. *Anatomical Therapeutic Chemical (ATC) classification index with Defined Daily Doses (DDDs)*. January 2009 ed. Oslo: WHO.
57. Miller GC, Britt HC, Valenti L 2006. Adverse drug events in general practice patients in Australia. *Med J Aust* 184(7):321-324.
58. Britt H, Miller GC, McGeechan K, Sayer GP 1999. Pathology ordering by general practitioners in Australia 1998. Cat. no. GEP 4. General practice series no. 4. Canberra: Department of Health and Aged Care. Viewed 4 September 2008, <pandora.nla.gov.au/pan/31109/20021113-0000/www.health.gov.au/haf/docs/pathorder.htm>.
59. Britt H, Knox S, Miller GC 2003. Changes in pathology ordering by general practitioners in Australia 1998-2001. *General Practice Series No. 13*. Cat. no. GEP 13. Canberra: Australian Institute of Health and Welfare.
60. Bayram C & Valenti L 2009. GP pathology ordering. In: Britt H, Miller GC (eds). *General practice in Australia, health priorities and policies 1998 to 2008*. General practice series no. 24. Cat. no. GEP 24. Canberra: Australian Institute of Health and Welfare, 57-86.
61. Health Insurance Commission. 2000. 1999/2000 Annual Report financial year statistics. Canberra, HIC.
62. Australian Government Department of Health and Ageing 2007. *Medicare Benefits Schedule Book*. Canberra: DoHA.
63. Medicare Australia 2009. *Health statistics, Medicare Benefits Schedule*. Canberra: Medicare Australia. Viewed 24 August 2009, <www.medicareaustralia.gov.au/statistics/mbs_item.shtml>.
64. Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez AD 2007. The burden of disease and injury in Australia 2003. Cat. no. PHE 82. Canberra: Australian Institute of Health and Welfare.
65. Mathers C, Vos T, Stevenson C 1999. The burden of disease and injury in Australia. Cat. no. PHE 17. Canberra: AIHW.
66. World Health Organization 2009. *Body mass index (BMI)*. Geneva: WHO. Viewed 25 June 2009, <www.euro.who.int/nutrition/20030507_1>.
67. Australian Bureau of Statistics 1998. *National Nutrition Survey: nutrient intakes and physical measurements, Australia 1995*. Cat. no. 4805.0. Canberra: ABS.
68. Cole TJ, Bellizzi MC, Flegal KM, Dietz WH 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. *BMJ* 320(7244):1240-1243.
69. Cole TJ, Flegal KM, Nicholls D, Jackson AA 2007. Body mass index cut offs to define thinness in children and adolescents: international survey. *BMJ* 335(7612):194.

70. Ogden CL, Kuczmarski RJ, Flegal KM, Mei Z, Guo S, Wei R et al. 2002. Centers for Disease Control and Prevention 2000 growth charts for the United States: improvements to the 1977 National Center for Health Statistics version 54. *Pediatrics* 109(1):45-60.
71. Valenti L 2009. Overweight and obesity. In: Britt H, Miller GC (eds). *General practice in Australia, health priorities and policies 1998 to 2008*. General practice series no. 24. Cat. no. GEP 24. Canberra: Australian Institute of Health and Welfare, 105-120.
72. Cretikos MA, Valenti L, Britt HC, Baur LA 2008. General practice management of overweight and obesity in children and adolescents in Australia. *Med Care* 46(11):1163-1169.
73. Ridolfo B & Stevenson C 2001. The quantification of drug-caused mortality and morbidity in Australia, 1998. *Drug Statistics Series*. Cat. no. PHE 29. Canberra: AIHW.
74. Australian Institute of Health and Welfare 2008. 2007 National Drug Strategy Household Survey: First results. *Drug Statistics Series no. 20*. Cat. no. PHE 98. Canberra: AIHW.
75. Single E, Ashley MJ, Bondy S, Rankin J, Rehm J 2000. Evidence regarding the level of alcohol consumption considered to be low-risk for men and women. Canberra: National Health and Medical Research Council. Viewed 10 December 2008, <www.nhmrc.gov.au/publications/pdf/alc-comp.pdf>.
76. National Health and Medical Research Council 2001. *Australian alcohol guidelines: health risks and benefits*. Canberra: Commonwealth of Australia.
77. National Health and Medical Research Council 2009. *Australian guidelines to reduce health risks from drinking alcohol*. Canberra: Commonwealth of Australia.
78. Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M 1993. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption--II. *Addiction* 88(6):791-804.
79. Centre for Drug and Alcohol Studies. 1993. *The alcohol use disorders identification test*. Sydney, Royal Prince Alfred Hospital and the University of Sydney.
80. Proude EM, Britt H, Valenti L, Conigrave KM 2006. The relationship between self-reported alcohol intake and the morbidities managed by GPs in Australia. *BMC Fam Pract* 7:17.

Glossary

A1 Medicare items: Medicare item numbers 1, 2, 3, 4, 13, 19, 20, 23, 24, 25, 33, 35, 36, 37, 38, 40, 43, 44, 47, 48, 50, 51, 601, 602.

Aboriginal: The patient identifies himself or herself as an Aboriginal person.

Activity level: The number of general practice A1 Medicare items claimed during the previous 3 months by a participating GP.

Allied and other health professionals: Those who provide clinical and other specialised services in the management of patients, including physiotherapists, occupational therapists, dietitians, dentists and pharmacists.

Chapters (ICPC-2): The main divisions within ICPC-2. There are 17 chapters primarily representing the body systems.

Chronic problem: see *Diagnosis/problem: Chronic problem*.

Commonwealth concession card: An entitlement card provided by the Australian Government that entitles the holder to reduced-cost medicines under the Pharmaceutical Benefits Scheme and a limited number of other concessions from state and local government authorities.

Complaint: A symptom or disorder expressed by the patient when seeking care.

Component (ICPC-2): In ICPC-2 there are seven components which act as a second axis across all chapters.

Consultation: See *Encounter*.

Diagnosis/problem: A statement of the provider's understanding of a health problem presented by a patient, family or community. GPs are instructed to record at the most specific level possible from the information available at the time. It may be limited to the level of symptoms.

- *New problem:* The first presentation of a problem, including the first presentation of a recurrence of a previously resolved problem, but excluding the presentation of a problem first assessed by another provider.
- *Old problem:* A previously assessed problem that requires ongoing care, including follow-up for a problem or an initial presentation of a problem previously assessed by another provider.
- *Chronic problem:* A medical condition characterised by a combination of the following characteristics: duration that has lasted or is expected to last 6 months or more, a pattern of recurrence or deterioration, a poor prognosis, and consequences or sequelae that impact on an individual's quality of life. (Source: O'Halloran J, Miller GC, Britt H 2004. Defining chronic conditions for primary care with ICPC-2. *Fam Pract* 21(4):381-6).
- *Work-related problem:* Irrespective of the source of payment for the encounter, it is likely in the GP's view that the problem has resulted from work-related activity or workplace exposures or that a pre-existing condition has been significantly exacerbated by work activity or workplace exposure.

Encounter (enc): Any professional interchange between a patient and a GP.

- *Indirect:* Encounter where there is no face-to-face meeting between the patient and the GP but a service is provided (for example, prescription, referral).

- *Direct*: Encounter where there is a face-to-face meeting of the patient and the GP.

Direct encounters can be further divided into:

- *Medicare-claimable*
 - *Surgery consultations*: Encounters identified by any one of MBS item numbers 3, 23, 36, 44, 52, 53, 54, 57, 5000, 5020, 5040, 5060, 5200, 5203, 5207, 5208.
 - *Home visits*: Encounters identified by any one of MBS item numbers 4, 24, 37, 47, 58, 59, 60, 65, 5003, 5023, 5043, 5063, 5220, 5223, 5227, 5228.
 - *Hospital encounters*: Encounters identified by any one of MBS item numbers 19, 33, 40, 50, 87, 89, 90, 91.
 - *Residential aged care facility*: Encounters identified by any one of MBS item numbers 20, 35, 43, 51, 92, 93, 95, 96, 5010, 5028, 5049, 5067, 5260, 5263, 5265, 5267.
 - *Health assessments*: Encounters identified by any one of MBS item numbers 700, 702, 704, 706, 708, 710, 712.
 - *Chronic disease management items*: Encounters identified by any one of MBS item numbers 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731.
 - *Case conferences*: Encounters identified by any one of MBS item numbers 734, 736, 738, 740, 742, 744, 746, 749, 757, 759, 762, 765, 768, 771, 773, 775, 778, 779.
 - *Incentive payments*: Encounters identified by any one of MBS item numbers 2497, 2501, 2503, 2504, 2506, 2507, 2509, 2517, 2518, 2521, 2522, 2525, 2526, 2546, 2547, 2552, 2553, 2558, 2559, 2574, 2575, 2577, 2578, 2598, 2600, 2603, 2606, 2610, 2613, 2616, 2620, 2622, 2624, 2631, 2633, 2635, 2664, 2666, 2668, 2673, 2675, 2677, 2704, 2705, 2707, 2708.
 - *Other MBS encounters*: Encounters identified by an MBS item number that does not identify place of encounter (see *A1 Medicare items*).
- *Workers compensation*: Encounters paid by workers compensation insurance.
- *Other paid*: Encounters paid from another source (for example, state).

General practitioner (GP): A medical practitioner who provides primary comprehensive and continuing care to patients and their families within the community (Royal Australian College of General Practitioners).

GP consultation service items: Includes GP services provided under the MBS professional services category including MBS items classed as A1, A2, A5, A6, A7, A14, A17, A18, A19, A20, A22 and selected items provided by GPs classified in A11, A15 and A27.

Medication: Medication that is prescribed, provided by the GP at the encounter or advised for over-the-counter purchase.

Medication rates: The rate of use of all medications, including medications that were prescribed, supplied by the GP and advised for over-the-counter purchase.

Medication status:

- *New*: The medication prescribed/provided at the encounter/advised is being used for the management of the problem for the first time.
- *Continuation*: The medication prescribed/provided at the encounter/advised is a continuation or repeat of previous therapy for this problem.
- *Old*: See *Continuation*.

Morbidity: Any departure, subjective or objective, from a state of physiological wellbeing. In this sense, sickness, illness and morbid conditions are synonymous.

Patient status: The status of the patient to the practice.

- *New patient:* The patient has not been seen before in the practice.
- *Old patient:* The patient has attended the practice before.

Practice nurse involvement: Encounters at which a practice nurse MBS item number and/or a treatment (either clinical or procedural) was recorded as done by the practice nurse.

Prescribed rates: The rate of use of prescribed medications (that is, does not include medications that were GP-supplied or advised for over-the-counter purchase).

Problem managed: See *Diagnosis/problem*.

Provider: A person to whom a patient has access when contacting the health care system.

Reasons for encounter (RFEs): The subjective reasons given by the patient for seeing or contacting the general practitioner. These can be expressed in terms of symptoms, diagnoses or the need for a service.

Recognised GP: A medical practitioner who is:

- vocationally recognised under Section 3F of the Health Insurance Act, *or*
- a holder of the Fellowship of the Royal Australian College of General Practitioners who participates in, and meets the requirements for, quality assurance and continuing medical education as defined in the Royal Australian College of General Practitioners (RACGP) Quality Assurance and Continuing Medical Education Program, *or*
- undertaking an approved placement in general practice as part of a training program for general practice leading to the award of the Fellowship of the Royal Australian College of General Practitioners, or undertaking an approved placement in general practice as part of some other training program recognised by the RACGP as being of equivalent standard. (*Source:* Commonwealth Department of Health and Aged Care 2001. Medicare benefits schedule book. Canberra: DHAC).

Referral: The process by which the responsibility for part or all of the care of a patient is temporarily transferred to another health care provider. Only new referrals to specialists and allied health professionals, and for hospital and residential aged care facility admissions arising at a recorded encounter are included. Continuation referrals are not included. Multiple referrals can be recorded at any one encounter.

Repatriation health card: An entitlement card provided by the Department of Veterans' Affairs that entitles the holder to access a range of Repatriation health care benefits, including access to prescription and other medications under the Pharmaceutical Benefits Scheme.

Rubric: The title of an individual code in ICPC-2.

Significant: This term is used to refer to a statistically significant results. Statistical significance is measured at the 95% confidence level in this report.

Torres Strait Islander: The patient identifies himself or herself as a Torres Strait Islander person.

Work-related problem: See *Diagnosis/problem*.

Appendices

Appendix 1: Example of a 2008–09 recording form

Encounter Number	Date of encounter	Date of Birth	Sex M <input type="checkbox"/> F <input type="checkbox"/>	Patient Postcode	PATIENT SEEN BY GP <input type="checkbox"/> PATIENT NOT SEEN BY GP <input type="checkbox"/>	Yes / No New Patient <input type="checkbox"/> <input type="checkbox"/> Health Care/Benefits Card <input type="checkbox"/> <input type="checkbox"/> Veterans Affairs Card <input type="checkbox"/> <input type="checkbox"/> NESB <input type="checkbox"/> <input type="checkbox"/> Aboriginal <input type="checkbox"/> <input type="checkbox"/> Torres Strait Islander <input type="checkbox"/> <input type="checkbox"/>
START Time	1. Patient Reasons for Encounter	2.	3.		Workers comp paid <input type="checkbox"/> State Govt/Other paid <input type="checkbox"/> No charge <input type="checkbox"/>	
AM / PM (please circle)						

Diagnosis/ Problem ①:	Problem Status				Strength of product	Dose	Frequency	No. of Rpts	Problem Status		Work related	Drug status
	New	Old	OTC	GP Supply					New	Old		
1. Drug Name AND Form for this problem												
2.												
3.												
4.												
Procedures, other treatments, counselling this consult for this problem												
1. Pract Nurse? <input type="checkbox"/> 2. Pract Nurse? <input type="checkbox"/>												

Diagnosis/ Problem ③:	Problem Status				Strength of product	Dose	Frequency	No. of Rpts	Problem Status		Work related	Drug status
	New	Old	OTC	GP Supply					New	Old		
1. Drug Name AND Form for this problem												
2.												
3.												
4.												
Procedures, other treatments, counselling this consult for this problem												
1. Pract Nurse? <input type="checkbox"/> 2. Pract Nurse? <input type="checkbox"/>												

Diagnosis/ Problem ④:	Problem Status				Strength of product	Dose	Frequency	No. of Rpts	Problem Status		Work related	Drug status
	New	Old	OTC	GP Supply					New	Old		
1. Drug Name AND Form for this problem												
2.												
3.												
4.												
Procedures, other treatments, counselling this consult for this problem												
1. Pract Nurse? <input type="checkbox"/> 2. Pract Nurse? <input type="checkbox"/>												

1. Pract Nurse? <input type="checkbox"/>	2. Pract Nurse? <input type="checkbox"/>	3. Pract Nurse? <input type="checkbox"/>	4. Pract Nurse? <input type="checkbox"/>
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NEW REFERRALS, ADMISSIONS	Problem(s)	Body site	Problem(s)
1.	1 2 3 4	1 2 3 4	1 2 3 4
2.	1 2 3 4	1 2 3 4	1 2 3 4
3.	1 2 3 4	1 2 3 4	1 2 3 4

Patient reported	Height: [] cm	Weight: [] kg	To the patient if 18+:	To the patient if 18+:
			Which best describes your smoking status?	How often do you have a drink containing alcohol?
			Smoke daily <input type="checkbox"/>	Never <input type="checkbox"/>
			Smoke occasionally <input type="checkbox"/>	Monthly or less <input type="checkbox"/>
			Previous smoker <input type="checkbox"/>	Once a week/fortnight <input type="checkbox"/>
			Never smoked <input type="checkbox"/>	2-3 times a week <input type="checkbox"/>
				4+ times a week <input type="checkbox"/>

PATHOLOGY	Problem(s)	PATHOLOGY (cont)	Problem(s)
1.	1 2 3 4	1 2 3 4	1 2 3 4
2.	1 2 3 4	1 2 3 4	1 2 3 4
3.	1 2 3 4	1 2 3 4	1 2 3 4

How many 'standard' drinks do you have on a typical day when you are drinking?	Never <input type="checkbox"/>	Less than monthly <input type="checkbox"/>	Monthly <input type="checkbox"/>	Weekly <input type="checkbox"/>	Daily or almost daily <input type="checkbox"/>

FINISH Time	AM / PM (please circle)

Appendix 2: GP characteristics questionnaire, 2008–09



The University of Sydney
at Westmead Hospital

Australian General Practice
Statistics and
Classification Centre



Doctor Identification Number

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a collaborating unit of the

Australian Institute of Health and Welfare

Please fill in boxes or circle answers

1. Sex Male / Female (please circle)
2. Age
3. How many years have you spent in general practice?
4. How many GPs (full time equivalents) work at this practice (including yourself)?
5. Postcode of major practice address.....
6. In which GP Division is this practice?
.....
7. Year of graduation
8. Country of graduation (primary medical degree):
 Australia Other: (specify) _____
9. Do you conduct any of your consultations in a language other than English?
 No Yes 25 – 50%
 Yes <25% Yes >50%
10. Are you a GP registrar (i.e. in training)?... Yes / No
11. Do you hold FRACGP?..... Yes / No
12. Do you hold FACRRM? Yes / No
13. Is your major practice accredited?..... Yes / No
14. To what extent do YOU use computers at work - (Circle all that apply)

Not at all.....1	Medical records
Prescribing2	complete (paperless) .. 8
Internet3	partial/hybrid..... 9
Email4	paper only..... 10
Pathology	What clinical software is used? (please specify)
electronic ordering (online) ..5	_____
print/produce orders only.....6	
electronic results receipt.....7	
15. Number of general practice sessions you usually work per week?
(1 session = ~4 hrs e.g. a morning session)
16. Direct patient care hours worked per week?
(Include hours of direct patient care, instructions, counselling etc and other services such as referrals, prescriptions, phone calls etc.)

17. Is there a practice nurse at your major practice address? Yes / No
If yes, how many full time equivalents?
18. Are any of the following services located / available on the premises? (Circle all that apply):
(includes services in the same building or within 50 metres, available on a daily or regular basis)

Physiotherapist.....1
Psychologist.....2
Pathology lab/collecti on centre.....3
Imaging4
Specialist5
Other (specify)6
None.....7
19. Over the past four weeks have you provided any patient care(Circle all that apply):

As a locum 1
In a deputising service 2
In a residential aged care facility 3
As a salaried/sessional hospital medical officer ...4
None of the above5
20. What are the normal after-hours arrangements for your practice? (Circle all that apply):

Practice does its own..... 1
Co-operative with other practices 2
Deputising service.....3
Referral to other service (e.g. A&E)4
Other 5
None 6
21. Do you bulk bill ALL patients? Yes / No
If No, which groups are bulk billed?
(Tick one box per row)

Pensioner/Healthcare Card holders...	All	Some	None
Children <16 years.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other patients.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Is your major practice site a teaching practice? (Circle all that apply):

for undergraduates..... 1
for junior doctors..... 2
for GP registrars.....3
No4
23. Did any of your BEACH consultations take place in an Aboriginal Community Controlled Health Service (ACCHS)?

No..... 1
Yes - all2
Yes - some (which dates) 3

Thank you for participating in the BEACH PROGRAM.

Appendix 3: Dissemination of results from the BEACH program

Available at <www.aihw.gov.au/publications/index.cfm/subject/19>. Click on the link to the report and see **Additional material**.

A full list of BEACH publications is also available at the Family Medicine Research Centre website: <www.fmrc.org.au/publications/>.

Appendix 4: Code groups from ICPC-2 and ICPC-2 PLUS

Available at <www.aihw.gov.au/publications/index.cfm/subject/19>. Click on the link to the report and see **Additional material**.

Appendix 5: Chronic code groups from ICPC-2 and ICPC-2 PLUS

Available at <www.aihw.gov.au/publications/index.cfm/subject/19>. Click on the link to the report and see **Additional material**.

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