

11 Referrals and admissions

A referral is defined as 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 arising at the encounter were included (that is, continuations were not recorded). For each encounter, GPs could record up to two referrals. These included referrals to specialists, allied health professionals, hospitals for admission, emergency departments or other medical services. Referrals to hospital outpatient clinics and to other GPs were classified as referrals to other medical services.

Data on referrals and admissions are reported for each year from 1999–00 to 2008–09 in the 10-year summary report *General practice activity in Australia 1999–00 to 2008–09: 10 year data tables*.¹

11.1 Number of referrals and admissions

Table 11.1 provides a summary of referrals and admissions, and the rates per 100 encounters and per 100 problems for which referrals were provided. The patient was given at least one referral at 12.8% of all encounters, and for 8.9% of all problems managed. The most frequent referrals were to specialists, followed by referrals to allied health services. Very few patients were referred to hospitals, to the hospital emergency department or to other medical services.

Table 11.1: Summary of referrals and admissions

Variable	Number	Rate per 100 encounters (n = 96,688)	95% LCL	95% UCL	Rate per 100 problems (n = 149,462)	95% LCL	95% UCL
At least one referral ^(a)	12,334	12.8	12.3	13.2	8.9	8.5	9.2
Referrals	13,251	13.7	13.2	14.2	8.9	8.6	9.2
Specialist	8,699	9.0	8.7	9.3	5.8	5.6	6.0
Allied health service	3,745	3.9	3.6	4.1	2.5	2.3	2.7
Hospital	317	0.3	0.3	0.4	0.2	0.2	0.2
Emergency department	199	0.2	0.2	0.2	0.1	0.1	0.2
Other medical services	48	0.0	0.0	0.1	0.0	0.0	0.0
Other referrals	243	0.3	0.2	0.3	0.2	0.1	0.2

(a) Rate per 100 problems for at least one referral is calculated using a numerator of number of individual problems with a referral (n = 13,228).

Note: LCL—lower confidence limit; UCL—upper confidence limit.

11.2 Most frequent referrals

There were 13,251 referrals made at a rate of 13.7 per 100 encounters. Table 11.2 shows the specialists and allied health service groups to whom GPs most often referred patients. The most common specialist referrals were to surgeons (10%), ophthalmologists (9%), orthopaedic surgeons (9%) and dermatologists (8%). About 30% of referrals to allied health services were to physiotherapists, 21% to psychologists, 9% to podiatrists or chiropodists and 6% to dietitians or nutritionists.

Table 11.2: The most frequent referrals, by type

Professional/organisation	Number	Per cent of referrals	Per cent of referral group	Rate per 100 encounters (n = 96,688)	95% LCL	95% UCL
Medical specialist	8,699	65.6	100.0	9.0	8.7	9.3
Surgeon	861	6.9	9.9	0.9	0.8	1.0
Ophthalmologist	766	6.1	8.8	0.8	0.7	0.9
Orthopaedic surgeon	754	6.0	8.7	0.8	0.7	0.9
Dermatologist	698	5.6	8.0	0.7	0.7	0.8
Cardiologist	575	4.6	6.6	0.6	0.5	0.7
Ear, nose and throat	561	4.5	6.4	0.6	0.5	0.6
Gastroenterologist	523	4.2	6.0	0.5	0.5	0.6
Gynaecologist	516	4.1	5.9	0.5	0.5	0.6
Urologist	342	2.7	3.9	0.4	0.3	0.4
Neurologist	265	2.1	3.0	0.3	0.2	0.3
<i>Subtotal: top 10 specialist referrals</i>	<i>5,861</i>	<i>44.2</i>	<i>67.4</i>	—	—	—
Allied health and other professionals	3,745	28.3	100.0	3.9	3.6	4.1
Physiotherapy	1,138	9.1	30.4	1.2	1.1	1.3
Psychologist	775	6.2	20.7	0.8	0.7	0.9
Podiatrist/chiropodist	341	2.7	9.1	0.4	0.3	0.4
Dietitian/nutritionist	230	1.8	6.1	0.2	0.2	0.3
Dentist	209	1.7	5.6	0.2	0.1	0.3
Audiologist/acoustic testing	105	0.8	2.8	0.1	0.1	0.1
Optometrist	75	0.6	2.0	0.1	0.1	0.1
Diabetes education	75	0.6	2.0	0.1	0.1	0.1
Breast clinic	70	0.6	1.9	0.1	0.0	0.1
Counsellor	61	0.5	1.6	0.1	0.0	0.1
<i>Subtotal: top 10 allied health referrals</i>	<i>3,079</i>	<i>24.6</i>	<i>82.2</i>	—	—	—
<i>Subtotal: all referrals listed</i>	<i>8,940</i>	<i>68.8</i>	—	—	—	—
Total referrals	13,251	100.0	—	13.7	13.2	14.2

Note: LCL—lower confidence limit; UCL—upper confidence limit.

11.3 Problems most often referred

Referrals can be linked to more than one problem managed at the encounter. The 8,699 referrals to a specialist were provided in the management of 8,895 problems. The 10 problems most commonly referred to a specialist accounted for 19.0% of all problems referred to a specialist. Those most often referred were diabetes (2.9% of problems referred to a specialist), pregnancy, malignant skin neoplasm and osteoarthritis (Table 11.3).

Table 11.3 also shows the rate of referral per 100 contacts for each problem. Carpal tunnel syndrome was the problem most likely to result in a referral to a specialist, followed by malignant skin neoplasm and pregnancy.

Table 11.3: The 10 problems most frequently referred to a medical specialist

Problem managed	Number	Per cent of problems referred	Rate per 100 encs (n = 96,688)	95% LCL	95% UCL	Rate per 100 contacts of this problem ^(a)
Diabetes—all*	254	2.9	0.3	0.2	0.3	6.4
Pregnancy*	250	2.8	0.3	0.2	0.3	20.3
Malignant skin neoplasm	243	2.7	0.3	0.2	0.3	20.7
Osteoarthritis*	206	2.3	0.2	0.2	0.3	7.7
Ischaemic heart disease*	147	1.7	0.2	0.1	0.2	11.9
Sleep disturbance	139	1.6	0.1	0.1	0.2	9.2
Back complaint*	131	1.5	0.1	0.1	0.2	5.0
Depression*	107	1.2	0.1	0.1	0.1	2.6
Carpal tunnel syndrome	105	1.2	0.1	0.1	0.1	48.5
Abnormal test results*	104	1.2	0.1	0.1	0.1	10.3
<i>Subtotal: top 10 problems referred to a specialist</i>	1,686	19.0	—	—	—	—
Total problems referred to specialist	8,895	100	9.2	8.8	9.6	—

(a) The rate of referrals to medical specialists per 100 contacts with the problem.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, <www.aihw.gov.au/publications/index.cfm/subject/19>).

Note: Encs—encounters; LCL—lower confidence limit; UCL—upper confidence limit.

The 3,745 referrals to an allied health professional or service were provided in the management of 3,884 problems. The 10 most common of these accounted for 46.2% of all problems referred to allied health services, with depression the most common. However, the problem most likely to result in a referral to an allied health service was teeth/gum disease, with more than one in four contacts resulting in referral (Table 11.4).

Table 11.4: The 10 problems most frequently referred to allied health services

Problem managed	Number	Per cent of problems referred	Rate per 100 encs (n = 96,688)	95% LCL	95% UCL	Rate per 100 contacts of this problem ^(a)
Depression*	491	12.7	0.5	0.5	0.6	12.0
Diabetes—all*	268	6.9	0.3	0.2	0.3	6.8
Back complaint*	265	6.8	0.3	0.2	0.3	10.1
Anxiety*	166	4.3	0.2	0.1	0.2	8.9
Osteoarthritis*	153	3.9	0.2	0.1	0.2	5.8
Sprain/strain*	153	3.9	0.2	0.1	0.2	11.1
Teeth/gum disease	107	2.8	0.1	0.1	0.1	28.1
Bursitis/tendonitis/synovitis NOS	67	1.7	0.1	0.1	0.1	8.1
Shoulder syndrome	63	1.6	0.1	0.1	0.1	11.6
Musculoskeletal injury NOS	62	1.6	0.1	0.1	0.1	7.6
<i>Subtotal: top 10 problems referred to AHS</i>	<i>1,795</i>	<i>46.2</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
Total problems referred to AHS	3,884	100.0	4.0	3.8	4.3	—

(a) The rate of referrals to allied health services per 100 contacts with the problem.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, <www.aihw.gov.au/publications/index.cfm/subject/19>).

Note: Encs—encounters; LCL—lower confidence limit; UCL—upper confidence limit; NOS—not otherwise specified; AHS—allied health service.

The 317 referrals to a hospital were provided in the management of 331 problems. The 10 problems most frequently referred to hospital are shown in Table 11.5. Pregnancy was the most common. However, acute myocardial infarction was the problem most likely to be referred.

Table 11.5: The 10 problems most frequently referred to hospital

Problem managed	Number	Per cent of problems referred	Rate per 100 encs (n = 96,688)	95% LCL	95% UCL	Rate per 100 contacts of this problem ^(a)
Pregnancy*	22	6.6	0.02	0.01	0.03	1.8
Fracture*	20	6.1	0.02	0.01	0.03	2.2
Pneumonia	12	3.7	0.01	0.00	0.02	4.4
Acute myocardial infarction	8	2.3	0.01	0.00	0.02	13.7
Anaemia*	7	2.1	0.01	0.00	0.01	1.3
Abdominal pain*	6	1.8	0.01	0.00	0.01	1.0
Acute bronchitis/bronchiolitis	6	1.8	0.01	0.00	0.01	0.2
Urinary disease, other (NEC)	6	1.7	0.01	0.00	0.01	1.1
Gastroenteritis*	5	1.6	0.01	0.00	0.01	0.4
Depression*	5	1.5	0.01	0.00	0.01	0.1
<i>Subtotal: top 10 problems referred for admission</i>	<i>97</i>	<i>29.2</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
Total problems referred to hospital	331	100.0	0.34	0.29	0.39	—

(a) The rate of referrals to hospital per 100 contacts with the problem.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, <www.aihw.gov.au/publications/index.cfm/subject/19>).

Note: Encs—encounters; LCL—lower confidence limit; UCL—upper confidence limit; NEC—not elsewhere classified.

The 199 referrals to an emergency department were provided in the management of 209 problems. The 10 problems most frequently referred to an emergency department are shown in Table 11.6. Fracture was the most common. However, appendicitis was the problem most likely to be referred.

Table 11.6: The 10 problems most frequently referred to an emergency department

Problem managed	Number	Per cent of problems referred	Rate per 100 encs (n = 96,688)	95% LCL	95% UCL	Rate per 100 contacts of this problem ^(a)
Fracture*	14	6.7	0.01	0.00	0.02	1.5
Pain, chest NOS	11	5.3	0.01	0.00	0.02	3.7
Abdominal pain*	8	3.7	0.01	0.00	0.01	1.3
Appendicitis	7	3.4	0.01	0.00	0.01	28.7
Boil/carbuncle	7	3.2	0.01	0.00	0.01	1.2
Atrial fibrillation/flutter	6	2.9	0.01	0.00	0.01	0.5
Ischaemic heart disease*	6	2.7	0.01	0.00	0.01	0.5
Fever	5	2.3	0.00 [‡]	0.00	0.01	5.0
Stroke/cerebrovascular accident	5	2.3	0.00 [‡]	0.00	0.01	2.5
Pneumonia	5	2.2	0.00 [‡]	0.00	0.01	1.7
<i>Subtotal: top 10 problems referred to emergency department</i>	72	34.5	—	—	—	—
Total problems referred to emergency department	209	100.0	0.22	0.17	0.26	—

(a) The rate of referrals to an emergency department per 100 contacts with the problem.

‡ Rates are reported to two decimal places. This indicates that the rate is < 0.005 per 100 encounters.

* Includes multiple ICPC-2 or ICPC-2 PLUS codes (see Appendix 4, <www.aihw.gov.au/publications/index.cfm/subject/19>).

Note: Encs—encounters; LCL—lower confidence limit; UCL—upper confidence limit; NOS—not otherwise specified.

11.4 Changes in referrals over the decade 1999–00 to 2008–09

An overview of changes in referrals over the decade can be found in Chapter 11 of the companion report *General practice activity in Australia 1999–00 to 2008–09: 10 year data tables*.¹ In summary, there was an increasing likelihood that the patient would be referred at the encounters in 2008–09. There was a significant increase in the overall number of referrals, reflected in referrals to most types of medical specialists. The rate of referral to an allied health service also increased significantly over the decade.

In 2008–09 there were significantly fewer referrals/admissions to hospitals than in 1999–00 but frequency was very low in all years.