

# 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 other GPs were classified as referrals to other medical services.

This chapter includes data about the referrals and admissions from each of the 10 years of the BEACH study from 1998–99 to 2007–08. The direction and type of change from 1998–99 to 2007–08 is indicated for each result in the far right column of the tables:  $\uparrow/\downarrow$  indicates a statistically significant linear change,  $\uparrow/\downarrow$  indicates a marginally significant linear change,  $\S$  indicates a non-linear significant change, and  $-$  indicates there was no change.

Significant linear changes can be extrapolated to estimate the national increase or decrease in referrals and admissions between 1998–99 and 2007–08. An example of an extrapolated change is given for each table. The method used to extrapolate to national change estimates is described in Chapter 2, Section 2.4.

Table 11.1 shows there was an increasing likelihood that the patient would be referred at the encounters (at 11.8% of encounters in 2007–08 compared with 10.6% in 1998–99), suggesting that the patient was referred to at least one other provider on about 1.75 million more occasions in 2007–08 than in 1998–99. There was a significant increase in the overall number of referrals per 100 encounters, from 11.1 in 1998–99 to 12.5 in 2007–08, reflecting both the increased likelihood of referral and a slight increase in the likelihood of multiple referrals at the encounter once the decision to refer has been made.

There was no overall increase in specialist referrals, but referral rates to cardiologists increased significantly and rates to dermatologists increased marginally.

The rate of referral to an allied health service has changed significantly since 1998–99, but not in a linear manner. It decreased from a referral rate of 3.0 per 100 encounters in 1998–99 to a low of 2.3 per 100 in 2001–02, and then steadily increased to 3.5 per 100 in 2007–08. The rate of referrals to physiotherapists, psychologists, podiatrist or chiropodists, and dietitians or nutritionists all significantly increased between 1998–99 and 2007–08.

In 2007–08 there were significantly fewer referrals/admissions to hospitals compared with 1998–99 but the numbers were very small in all years.

Table 11.1: The most frequent referrals, summary of annual results, BEACH, 1998–99 to 2007–08

Referral	Rate per 100 encounters <sup>(b)</sup> (95% CI)											↑ <sup>(b)</sup> ↓
	1998–99 (n = 96,901)	1999–00 (n = 104,856)	2000–01 (n = 99,307)	2001–02 (n = 96,973)	2002–03 (n = 100,987)	2003–04 (n = 98,877)	2004–05 (n = 94,386)	2005–06 (n = 101,993)	2006–07 (n = 91,805)	2007–08 (n = 95,898)		
At least one referral	10.6 (10.2–11.0)	10.4 (10.0–10.8)	9.9 (9.6–10.3)	10.0 (9.6–10.4)	10.6 (10.2–11.0)	11.0 (10.5–11.5)	10.9 (10.5–11.3)	11.3 (10.9–11.8)	11.5 (11.0–11.9)	11.8 (11.3–12.2)	↑	
Medical specialist	7.4 (7.1–7.7)	7.3 (7.0–7.6)	7.4 (7.1–7.7)	7.3 (7.0–7.6)	7.7 (7.3–8.0)	7.9 (7.5–8.2)	7.7 (7.4–8.0)	8.2 (7.8–8.5)	8.0 (7.7–8.4)	8.0 (7.6–8.3)	§	
Surgeon	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.8–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.8)	0.8 (0.8–0.9)	0.8 (0.8–0.9)	–	
Orthopaedic surgeon	0.6 (0.5–0.7)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.7 (0.7–0.8)	0.8 (0.7–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.8 (0.7–0.8)	0.7 (0.6–0.7)	–	
Dermatologist	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.6 (0.5–0.6)	0.6 (0.6–0.7)	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.6 (0.5–0.7)	0.7 (0.6–0.7)	↑	
Ophthalmologist	0.7 (0.7–0.8)	0.7 (0.6–0.7)	0.7 (0.6–0.7)	0.8 (0.7–0.8)	0.7 (0.7–0.8)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.8 (0.7–0.9)	0.7 (0.6–0.7)	–	
Cardiologist	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.3–0.4)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.7)	0.6 (0.5–0.7)	0.5 (0.5–0.6)	↑	
Ear, nose and throat	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.4–0.5)	0.5 (0.4–0.6)	0.5 (0.5–0.6)	–	
Gastroenterologist	0.4 (0.4–0.5)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	0.5 (0.4–0.6)	–	
Gynaecologist	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.6 (0.6–0.7)	0.6 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.5 (0.5–0.6)	0.4 (0.4–0.5)	↓	
Urologist	0.3 (0.3–0.4)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.3–0.3)	0.3 (0.3–0.4)	0.3 (0.2–0.3)	0.3 (0.3–0.4)	0.3 (0.3–0.4)	0.3 (0.3–0.3)	↓	
Neurologist	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.2 (0.2–0.2)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	↑	
Psychiatrist	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.3 (0.2–0.3)	0.2 (0.2–0.3)	0.2 (0.2–0.3)	–	

(continued)

Table 11.1 (continued): The most frequent referrals, summary of annual results, BEACH, 1998-99 to 2007-08

Referral	Rate per 100 encounters <sup>(a)</sup> (95% CI)										↑ <sup>(b)</sup> ↓
	1998-99 (n = 96,901)	1999-00 (n = 104,856)	2000-01 (n = 99,307)	2001-02 (n = 96,973)	2002-03 (n = 100,987)	2003-04 (n = 98,877)	2004-05 (n = 94,386)	2005-06 (n = 101,993)	2006-07 (n = 91,805)	2007-08 (n = 95,898)	
Allied health service	3.0 (2.8-3.2)	3.1 (2.9-3.3)	2.3 (2.2-2.5)	2.3 (2.1-2.4)	2.5 (2.3-2.7)	2.6 (2.4-2.8)	2.7 (2.5-2.9)	2.9 (2.7-3.1)	3.1 (2.9-3.3)	3.5 (3.2-3.7)	§
Physiotherapy	0.9 (0.8-1.0)	1.0 (0.9-1.1)	1.0 (0.9-1.1)	0.9 (0.8-1.0)	1.1 (0.9-1.2)	1.0 (0.9-1.1)	1.1 (0.9-1.1)	1.1 (1.0-1.3)	1.1 (1.0-1.2)	1.2 (1.1-1.3)	↑
Psychologist	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.2-0.3)	0.2 (0.2-0.3)	0.4 (0.4-0.5)	0.7 (0.6-0.7)	↑
Podiatrist/chiropracist	0.2 (0.1-0.2)	0.1 (0.1-0.2)	0.1 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.2-0.2)	0.2 (0.1-0.2)	0.2 (0.2-0.3)	0.2 (0.2-0.3)	0.3 (0.3-0.4)	0.3 (0.3-0.4)	↑
Dietitian/nutritionist	0.1 (0.1-0.1)	0.1 (0.1-0.2)	0.1 (0.1-0.1)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.2-0.2)	0.2 (0.2-0.3)	0.2 (0.2-0.3)	0.2 (0.2-0.3)	↑
Dentist	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	0.2 (0.1-0.2)	—
Audiologist/acoustic testing	0.1 (0.1-0.1)	0.1 (0.1-0.1)	0.1 (0.1-0.1)	0.1 (0.1-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.1 (0.1-0.1)	0.1 (0.1-0.1)	0.1 (0.1-0.1)	0.0 <sup>†</sup> (0.0-0.0)	0.1 (0.1-0.1)	—
Optometrist	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.1-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.1-0.1)	0.1 (0.1-0.1)	0.1 (0.1-0.1)	—
Breast clinic	NAV	0.0 <sup>†</sup> (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.1)	0.1 (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.1 (0.1-0.1)	—
Diabetes education	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.1 (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	—
Counsellor	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.1-0.1)	0.1 (0.0-0.1)	0.1 (0.1-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	—
Mental health team	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.0 <sup>†</sup> (0.0-0.0)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	—
Drug and alcohol	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.0)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.1 (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.0 <sup>†</sup> (0.0-0.1)	0.1 (0.0-0.1)	—

(continued)

Table 11.1 (continued): The most frequent referrals, summary of annual results, BEACH, 1998–99 to 2007–08

Referral	Rate per 100 encounters <sup>(a)</sup> (95% CI)										<sup>(b)</sup>
	1998–99 (n = 96,901)	1999–00 (n = 104,856)	2000–01 (n = 99,307)	2001–02 (n = 96,973)	2002–03 (n = 100,987)	2003–04 (n = 98,877)	2004–05 (n = 94,386)	2005–06 (n = 101,993)	2006–07 (n = 91,805)	2007–08 (n = 95,898)	
Hospital	0.7 (0.6–0.8)	0.7 (0.6–0.8)	0.5 (0.4–0.6)	0.4 (0.4–0.5)	0.6 (0.5–0.6)	0.6 (0.5–0.6)	0.5 (0.4–0.5)	0.4 (0.3–0.4)	0.4 (0.3–0.5)	0.4 (0.3–0.5)	↔
Emergency department	0.1 (0.0–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.1)	0.1 (0.1–0.2)	0.1 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.2)	0.2 (0.1–0.2)	0.2 (0.2–0.3)	↗
Other referrals/other medical services <sup>(c)</sup>	0.0 <sup>‡</sup> (0.0–0.0)	0.0 <sup>‡</sup> (0.0–0.0)	0.2 (0.1–0.2)	0.4 (0.3–0.4)	0.3 (0.2–0.3)	0.4 (0.4–0.5)	0.4 (0.4–0.5)	0.4 (0.3–0.4)	0.5 (0.5–0.6)	0.5 (0.4–0.6)	↗
<b>Total referrals</b>	<b>11.1 (10.7–11.6)</b>	<b>11.1 (10.7–11.6)</b>	<b>10.4 (10.0–10.8)</b>	<b>10.5 (10.1–10.9)</b>	<b>11.1 (10.7–11.6)</b>	<b>11.6 (11.1–12.1)</b>	<b>11.5 (11.1–12.0)</b>	<b>12.0 (11.5–12.5)</b>	<b>12.2 (11.7–12.7)</b>	<b>12.5 (12.0–13.0)</b>	↗

(a) Column will not add to 100, as multiple referrals could be written at each encounter.

(b) The direction and type of change from 1998–99 to 2007–08 is indicated for each result: ↗↘ indicates a statistically significant change, ↗↘ indicates a marginal change, § indicates a non-linear significant or marginal change, and — indicates there was no change.

(c) Other referrals and other medical services have been reported together for comparability. The 'other medical services' group was introduced in 2003–04, previously these were grouped with 'other referrals'.

‡ Rates are reported to one decimal place. This indicates that the rate is < 0.05 per 100 encounters.

Note: CI—confidence interval; NAV—not available.